

# PART TWO

## *Area Planning*



In creating any architectural design, the designer must progress logically step by step through the design process as covered in Unit 2. One of the key steps in this process is to divide the functions of buildings into specific areas. For example, a school would be divided into such areas as those for administration, classrooms, service, physical activity, and so forth. A hospital would likewise be divided into such areas as those for reception, emergency services, food service, maintenance, patient rooms, laboratory functions, and so forth. In the

same manner, a house can be divided into three major functional areas, for planning purposes: the living area, the service area, and the sleeping area. Areas are further subdivided into rooms so that all the rooms in an area will relate to its basic function. A designer must always be sure to become familiar with the functions and relationships of the areas of a building regardless of the type of structure being designed. Part Two presents the principles and practices involved in planning the three basic areas of a residential structure.



## SECTION 3

# Living Area

Your first impression of a home is probably the image you retain of the living area. In fact, this is the only area of the home that most strangers observe. The living area is just what the name states, the area where most of the living occurs. It is here the family entertains, relaxes, dines, listens to music, watches television, enjoys hobbies, and participates in other recreational activities.

The total living area is divided into smaller areas (rooms) which are designed to perform specific living functions. The subdivisions of most living areas may include the living room, dining room, recreation or game room, family room, patio, entrance foyer, den or study, and guest lavatories. Other specialized rooms, such as the library, music room, or sewing room, are often included as part of the living area of large houses that have the space to devote to such specialized functions. In smaller homes, many of the standard rooms combine two or more functions. For example,

the living room and dining room are often combined. In extremely small homes, the living room constitutes the entire living area and provides all the facilities normally assigned to other rooms in the living area. Although the subdivisions of the living area are called rooms, they are not always separated by a partition or a wall. Nevertheless, they perform the function of a room, whether there is a complete separation, a partial separation, or no separation.

When room are completely separated by partitions and doors, the plan is known as a closed plan. When partitions do not divide the rooms of an area, the arrangement is called an open plan.

In most two-story dwellings, the living area is normally located on the first floor. However, in split-level homes or one-story homes with functional basements, part of the living area may be located on the lower level.

## UNIT 6

# LIVING ROOMS

The *living room* is the center of the living area in most homes. In small homes the living room may represent the entire living area. Hence, the function, location, decor, size, and shape of the living room are extremely important and affect the design, functioning, and appearance of the other living-area rooms.

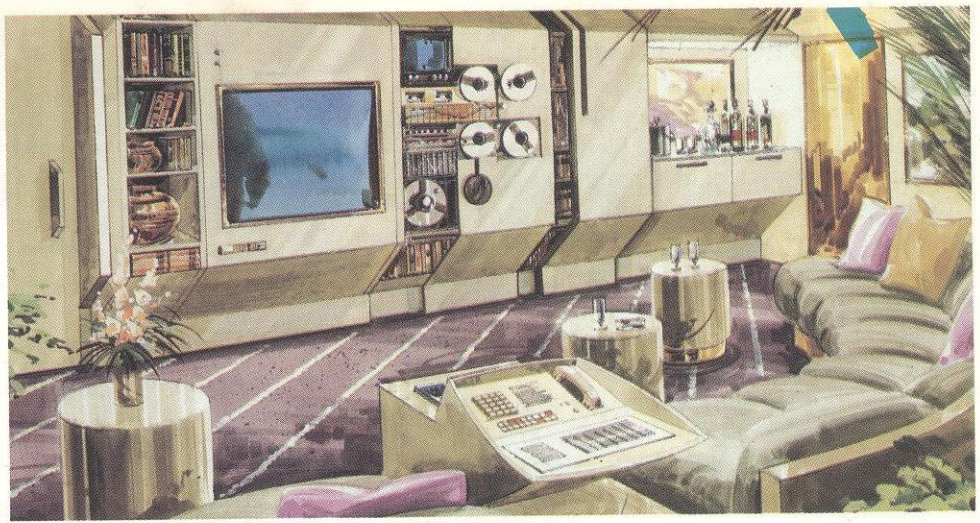
## FUNCTION

The living room is designed to perform many functions. The exact function depends on the liv-

ing habits of the occupants. In the home, the living room is often the entertainment center, the recreation center, the library, the music room, the TV center, the reception room, the social room, the study, and occasionally the dining center. If the living room is to perform all or some of these functions, then it should be designed accordingly. The shape, size, location, decor, and facilities of the room should be planned to provide for each activity. Figure 6-1 shows the design of a media-centered room.

Any of the facilities normally associated with the living room can be eliminated if a separate special-purpose room exists for that activity. For example, if television viewing is restricted to a recreation room, then planning for TV in the living room can be eliminated. If a den or study is provided for reading and for storing books, facilities for the use of large numbers of books in the





**Fig. 6-1** A media-oriented room. (Fein-craft Inc.)

living room can be eliminated. Regardless of the exact activities anticipated, the living room should always be planned as a functional, integral part of the home. The living room is planned for the comfort and convenience of the family and guests.

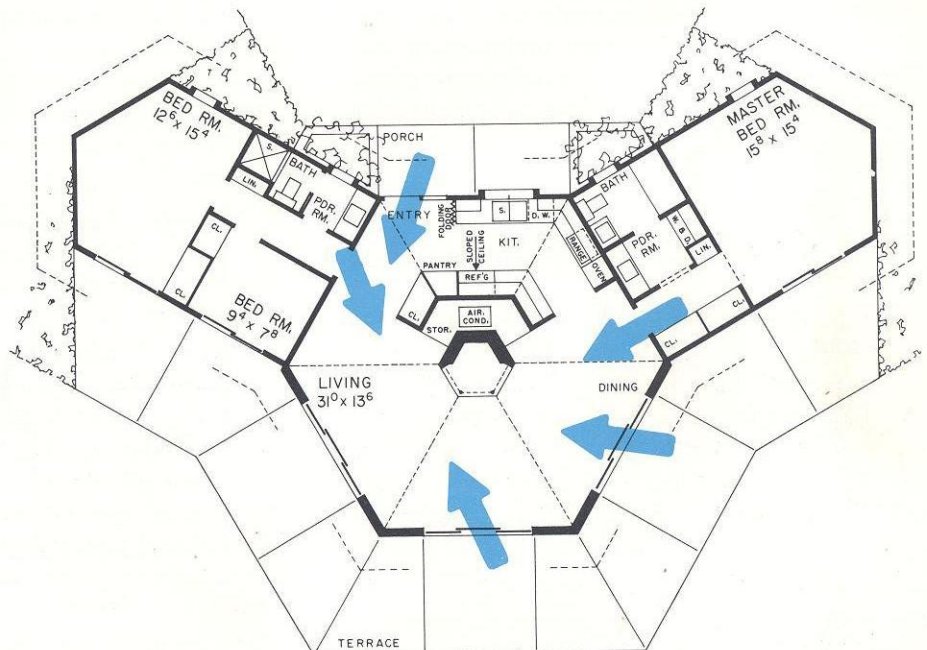
## LOCATION

The living room should be centrally located. It should be adjacent to the outside entrance, but the entrance should not lead directly into the living room. In smaller residences, the entrance may open into the living room, but whenever

possible this arrangement is to be avoided. The living room should not be a traffic access to the sleeping and service area of the house. Since the living room and dining room function together, the living room should be adjacent to the dining room. Figure 6-2 shows the central location of a living room and its proximity to other rooms of the living area.

## Open Plan

In an open-plan living area, the living room, dining room, and entrance may be part of one open area. The living room may be separated from



**Fig. 6-2** A centrally located living room.



other rooms by means of a divider without doors, such as a storage wall. In Fig. 6-3A and B, the living room is separated from the dining room by a fireplace. In Fig. 6-3B, the living room is separated from the rest of the house by an atrium. Often a separation is accomplished by placing the living room on a different level. Separation may also be achieved by the use of area rugs or furniture placement. Of course, these features do not separate the rooms visually, but they do effect a functional separation.

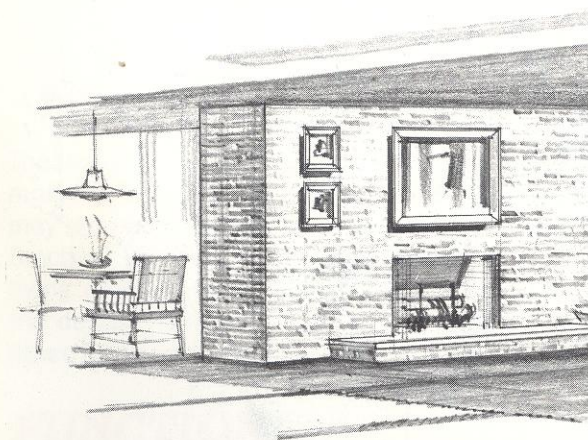
When an open plan is desired and, yet, the designer wants to provide some means of closing off the room completely, sliding doors or folding doors can be used.

## Closed Plan

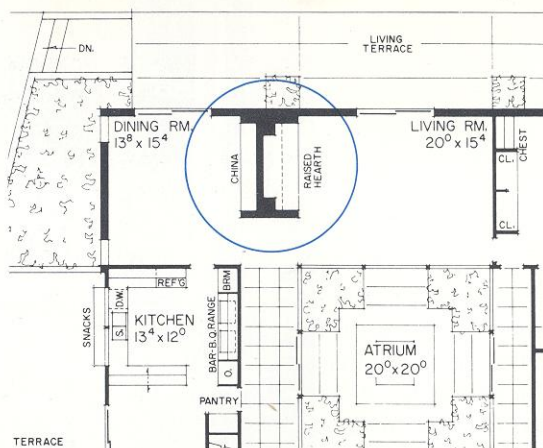
In a closed plan, the living room is completely closed from the other rooms by means of walls. Access is through doors, arches, or relatively small openings in partitions (Fig. 6-4). Closed plans are found most frequently in traditional or period-type homes.

## DECOR

There is no one way to design and decorate a room. The decor depends primarily on the tastes, habits, and personalities of the people who will use the room. If the residents' tastes are modern, the wall, ceiling, and floor treatments should be consistent with the clean, functional lines of contemporary architecture and contemporary furniture. If the residents prefer colonial or period-style architecture, then this



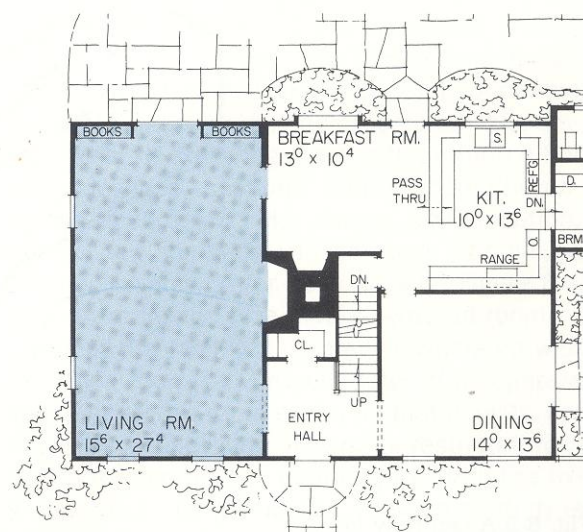
**Fig. 6-3A** A fireplace can be used to separate the living room from the dining room without isolation. (Home Planners, Inc.)



**Fig. 6-3B** Separation by fireplace and atrium. (Home Planners, Inc.)

theme should be reflected in the decor of the room.

The living room should appear inviting, comfortable, and spacious. This appearance can be accomplished by an effective use of color and lighting techniques and by the tasteful selection of wall, ceiling, and floor-covering materials. The selection and placement of functional, well-designed furniture also helps the appearance. Decorating a room is much like selecting clothing. The color, style, and materials should be selected to minimize faults and to emphasize good points. The use of mirrors and floor-to-ceiling drapes along with proper furniture placement can create a spacious effect in a relatively small room.



**Fig. 6-4** Closed-plan living room. (Home Planners, Inc.)



## Walls

The design and placement of doors, windows, and chimneys along the walls of the living room can change the entire appearance of the room. The kind of wall-covering material used can also affect the appearance. Wall coverings are selected from a variety of materials, including plaster, gypsum wallboard, wood paneling, brick, stone, and glass. Sometimes, furniture is built into the walls. Fireplaces, windows, doors, or openings to other areas should be designed as integral parts of the room. They should not appear as afterthoughts.

## Orientation

The living room should be oriented to take full advantage of the position of the sun and the most attractive view. Since the living room is used primarily in the afternoon and evening, it should be located to take advantage of the afternoon sun.

## Windows

When a window is placed in a living-room wall, it should become an integral part of that wall. The view from the window or windows becomes part of the living-room decor, especially when landscape features are near and readily observable. When planning windows, consider also the various seasonal changes in landscape features.

Although the primary function of a window is twofold, to admit light and to provide a pleasant view of the landscape, there are many conditions under which only the admission of light is desirable. If the view from the window is unpleasant or is restricted by other buildings, translucent glass, which primarily admits light, can be incorporated into the plan.

## Fireplace

The primary function of a fireplace is to provide heat, but it is also a permanent decorative feature. The fireplace and accompanying masonry should maintain a clean, simple line consistent with the decor of the room and of the wall where they are placed. The fireplace and chimney masonry can cover an entire wall. Consequently, the fireplace can become the focal point of the room. The fireplaces shown in Fig. 6-3A and B are used as the major separation between the living room and the dining room.

## Floors

The living-room floor should reinforce and blend with the color scheme, textures, and overall style of the living room. Exposed hardwood flooring, room-size carpeting, wall-to-wall carpeting, throw rugs, and sometimes polished flagstone are appropriate for living-room use.

## Ceilings

Most conventional ceilings are flat surfaces covered with plaster or gypsum board. New building materials, such as laminated beams and arches, and new construction methods now enable architects to design ceilings that conserve building materials and utilize previously wasted space. Figure 6-5A shows types of open-beam ceiling treatments, and Fig. 6-5B shows a comparison of open-beam and conventional ceiling space.

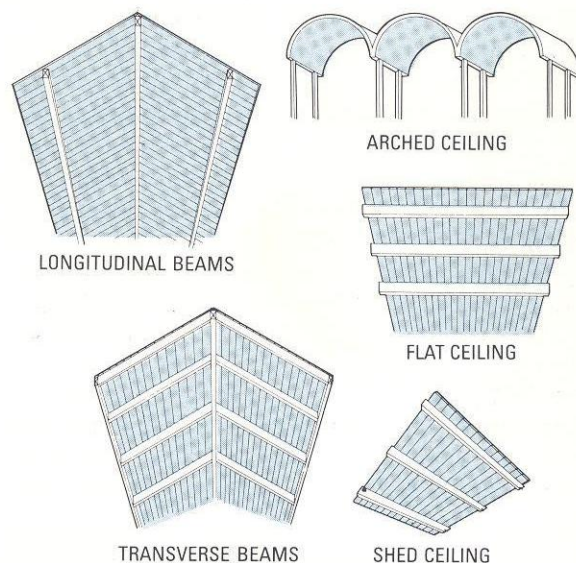


Fig. 6-5A Open-beam ceilings styles.

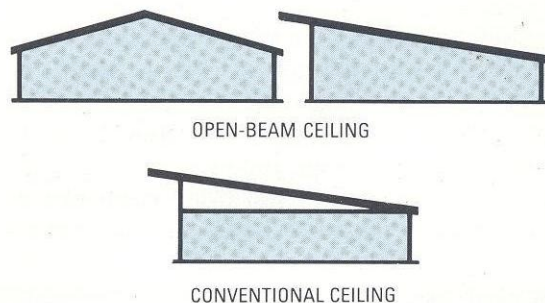


Fig. 6-5B Two basic types of open-beam ceilings.



## Lighting

Living-room lighting is divided into three types: *general lighting*, *decorative lighting*, and *local lighting*. General lighting is designed to illuminate the entire room through the use of ceiling fixtures, wall spots, or cove lighting. Local lighting is provided for a specific purpose, such as reading, drawing, sewing, or decorative purposes. Local lighting can be supplied by table lamps, wall lamps, pole lamps, or floor lamps.

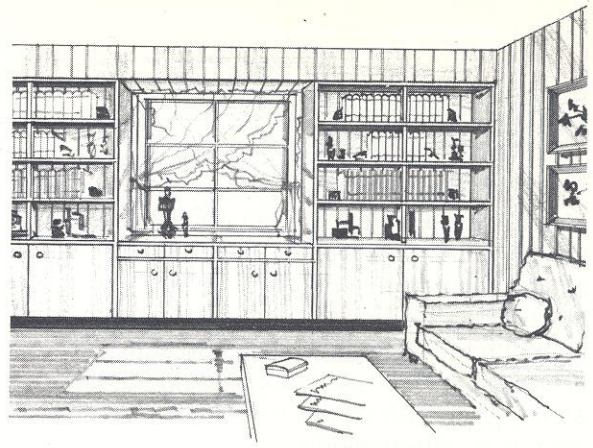
## Furniture

Furniture for the living room may or may not reflect the motif and architectural style of the home. Most designers, when working directly with a client, attempt to match the exterior style of the house to the interior furniture style preference of the client.

A special effort should be made to have built-in furniture maintain lines consistent with the remaining wall treatment. Notice how the built-in bookshelves in Fig. 6-6 eliminate the need for other pieces of furniture in their end of the room. The built-in bookshelves and cabinets blend functionally into the total decor of the room. The furniture for the living room is chosen to fit the living needs of the residents. The size, shape, and layout of the room should be designed to accommodate the furniture. This top design is a result of establishing the size and shape of the room without considering the size and number of pieces of furniture to be used.

## SIZE AND SHAPE

One of the most difficult aspects of planning the size and shape of a living room, or any other room, is to provide sufficient wall space for the



**Fig. 6-6** Built-in bookshelves conserve floor space. (Home Planners, Inc.)

effective placement of furniture. Continuous wall space is needed for the placement of many articles of furniture, especially musical equipment, bookcases, chairs, and couches. The placement of fireplaces, doors, or openings to other rooms should be planned to conserve as much wall space as possible for furniture placement.

Rectangular rooms are generally easier to plan and to place furniture in than are square rooms. However, the designer must be careful not to establish a proportion that will break the living room into several conversational areas.

Living rooms vary greatly in size. A room 12 feet by 18 feet (12' X 18'), or 3.7 meters by 5.5 meters (3.7 m X 5.5 m), would be considered a small or minimum-sized living room. A living room of average size would be approximately 16' X 20' (4.9 m X 6.1 m), and a very large or optimum-sized living room would be 20' X 26' (6.1 m X 7.9 m) or more.

## Exercises

1. Sketch an open-plan living room. Indicate the position of windows, fireplace, foyer, entrance, and dining room.
2. Sketch a closed-plan living room. Show the position of adjacent rooms.
3. Sketch one wall of the living room you designed for Problem 2. Use Fig. 6-4 as a guide.



4. List the furniture you would include in the living room of the house of your design. Cut out samples of this furniture from catalogs or newspapers.
5. Define the following terms: *closed plan*, *open plan*, *decor*, *living area*, *living room*, *local lighting*, *general lighting*.



# DINING ROOMS

The dining facilities designed for a residence depend greatly on the dining habits of the occupants. The dining room may be large and formal, or the dining area may consist of a dining alcove. It may also be a breakfast nook in the kitchen. Large homes may contain dining facilities in all these areas.

## FUNCTION

The function of a dining area is to provide a place for the family to gather for breakfast, lunch, or dinner in both casual and formal situations. When possible, a separate dining area potentially capable of seating from 8 to 12 persons for dinner should be provided in addition to breakfast or dinette facilities.

## LOCATION

Dining facilities may be located in many different areas, depending on the capacity needed and the type of plan. In the closed plan, a separate dining room is usually provided. In an open plan, many different dining locations are possible (Fig. 7-1). Open-area dining facilities are sometimes provided in the kitchen or the living room.

Regardless of the exact position of the dining area, it must be placed adjacent to the kitchen. The ideal dining location is one that requires few steps from the kitchen to the dining table. However, the preparation of food and other kitchen activities should be baffled from direct view from the dining area.

If dining facilities are not located in the living room, they should be located next to it. Family and guests normally enter the dining room from the living room and use both rooms jointly.

The nearness of the dining room to the kitchen, and to the living room, requires that it be placed between the kitchen and the living area. The dining room in the closed plan shown in Fig. 7-2 is located in this manner.

The area between the living room and the dining room may be entirely open, partially baffled,

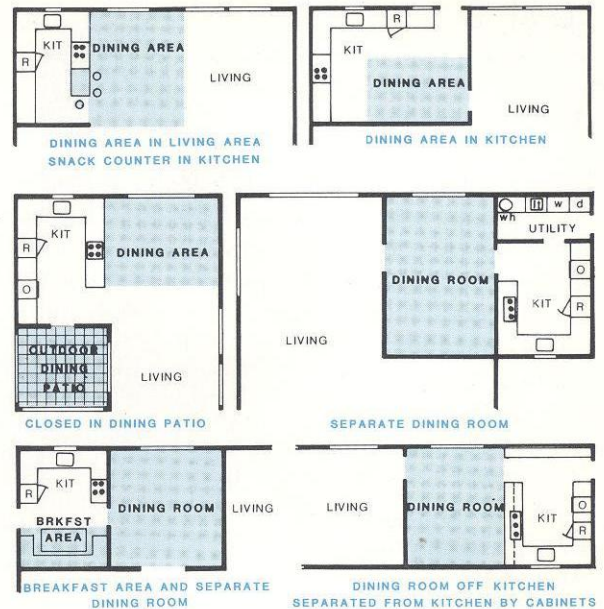


Fig. 7-1 Plans showing the location of dining facilities in many different areas.

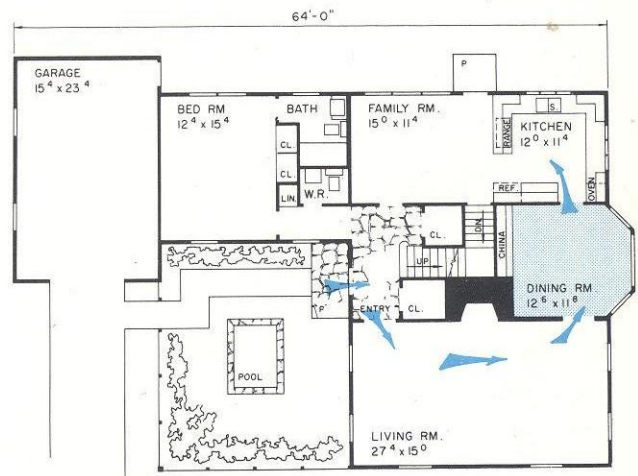
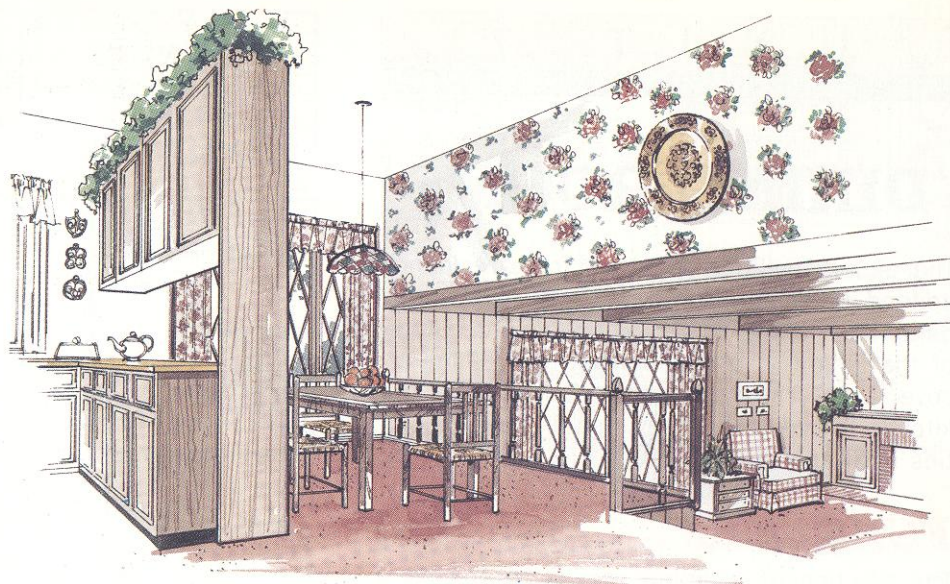


Fig. 7-2 The dining room is located between the living room and the kitchen. (Home Planners, Inc.)

or completely closed off. Sometimes, the separation of the dining room and the living room is accomplished by different floor levels or by dividing the rooms with common half walls, as shown in Fig. 7-3. Another method of separating the dining area in an open plan is through the use of partial partitions, as shown in Fig. 7-4. Compare this semi-isolated arrangement with the completely open dining area shown in Fig. 7-5.

There is often a need for dining facilities on or adjacent to the patio. The porch or patio should





**Fig. 7-3** Separation with half walls. (*Home Planners, Inc.*)



**Fig. 7-4** A partial wall without a door makes this an open plan. (*Home Planners, Inc.*)

## DECOR

The decor of the dining room should blend with the rest of the house. Floor, wall, and ceiling treatment should be the same in the dining area as in the living area. If a dining porch or a dining patio is used, its decor must also be considered part of the dining-room decor. This is because the outside dining area is viewed from the inside.

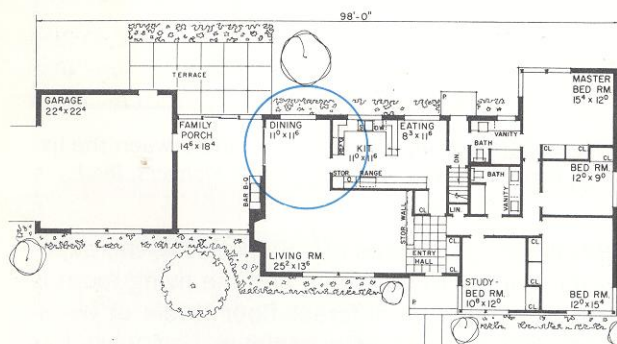
If semi-isolation is desired, partial divider walls can be used effectively. These dividers may be planter walls, glass walls, half walls of brick or stone, paneled walls, fireplaces, or grillwork.

## Lighting

Controlled lighting can greatly enhance the decor of the dining room. General illumination that can be subdued or intensified can provide the right atmosphere for almost any occasion. Lighting is controlled by a rheostat, which is commonly known as a *dimmer switch*. In addition to general illumination, local lighting should be provided for the table either by a direct ceiling spotlight or by a hanging lamp (Fig. 7-6). A hanging lamp can be adjusted down for local dining lighting and up for general illumination when the dining facilities are not in use.

## SIZE AND SHAPE

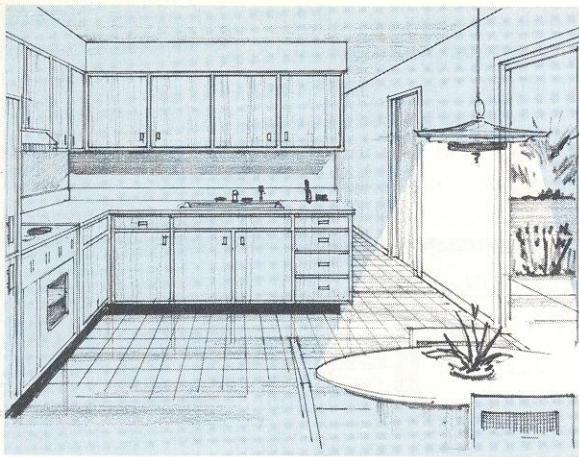
The size and shape of the dining area are determined by the size of the family, the size and



**Fig. 7-5** An open dining-plan. (*Home Planners, Inc.*)

be near the kitchen and directly accessible to it. Locating the patio or dining porch directly outside the dining room or kitchen wall provides maximum use of the facilities. This minimizes the inconvenience of using outside dining facilities.





**Fig. 7-6** The use of local lighting over the dining table. (*Home Planners, Inc.*)

amount of furniture, and the clearances and traffic areas between pieces of furniture. The dining area should be planned for the largest group that will dine in it regularly. There is little advantage in having a dining-room table that expands, if the room is not large enough to accommodate the expansion. One advantage of the open plan is that the dining facilities can be expanded in an unlimited manner into the living area, as shown in Fig. 7-7. Thus, the living area temporarily becomes part of the dining area.

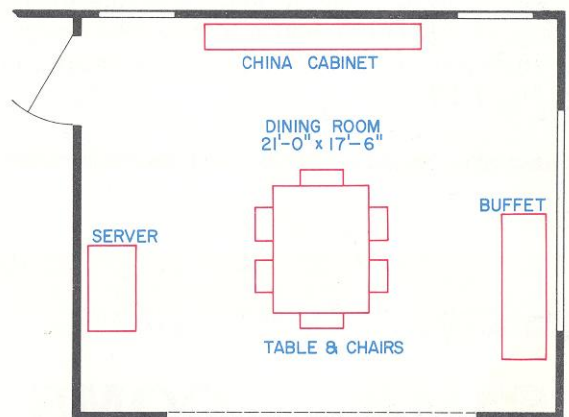
## Furniture

The dining room should be planned to accommodate the furniture. Dining-room furniture may include an expandable table, side chairs, armchairs, buffet, server or serving cart, china closet, and serving bar. In most situations, a

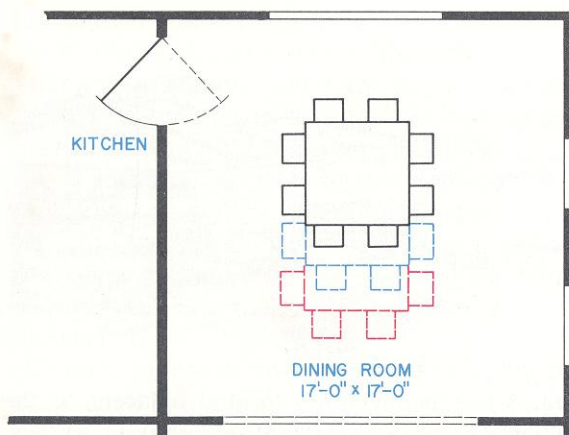
rectangular dining room will accommodate the furniture better than a square room. Figure 7-8 shows a typical furniture placement for a dining room.

Regardless of the furniture arrangement, a minimum space of 2' (610 millimeters, or mm) should be allowed between a chair and the wall or other furniture when the chair is pulled to the out position. This allowance will permit serving traffic behind chairs and will permit entrance to and exit from the table without difficulty. A distance of 27 inches, or 27" (690 mm), per person should be allowed at the table. This spacing is accomplished by allowing 27" (690 mm) from the centerline of one chair to the centerline of another, as shown in Fig. 7-9.

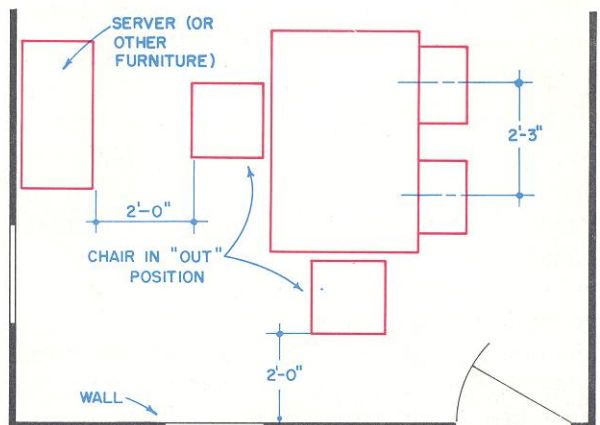
A dining room that would accommodate the minimum amount of furniture—a table, four chairs, and a buffet—would be approximately 10' × 12' (3 m × 3.7 m). A minimum-sized din-



**Fig. 7-8** Typical furniture placement in a dining room.



**Fig. 7-7** A dining area planned for expansion.



**Fig. 7-9** Dining-room clearances.



ing room that would accommodate a dining table, six or eight chairs, a buffet, a china closet, and a server would be approximately

12' × 15' (3.7 m × 4.6 m). An optimum-sized dining room would be 14' × 18' (4.3 m × 5.5 m) or larger.

## Exercises

1. Sketch a dining room to include the following furniture: dining table to accommodate six, buffet, china closet. Indicate the relationship to the living room, and provide access to a patio.
2. Sketch a plan for an informal dining area directly adjacent to the kitchen.
3. Sketch an open-plan dining area. Show the relationship of this area to the living room.
4. Redesign the dining area of your own home.
5. Sketch a dining room to scale, showing the position of all furniture you would like to include in the dining room of a house of your own design.
6. Draw a floor plan of the dining area shown in Fig. 7-10.

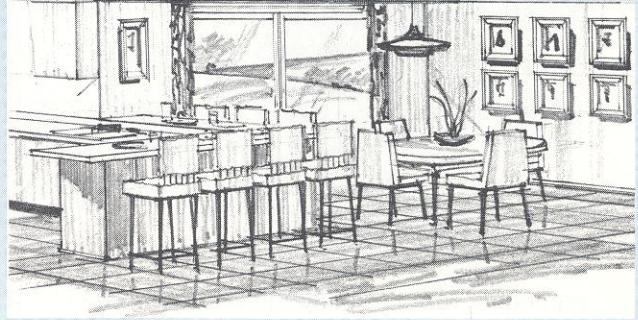


Fig. 7-10 (Home Planners, Inc.)

7. Define the following terms: *buffet, china closet, server, rheostat, dining porch, dining patio, formal dining, casual dining.*

## UNIT 8

# FAMILY ROOMS

The trend toward more informal living because of more leisure time has influenced the popularity of the family room. Today, the majority of homes are designed to include a family room.

## FUNCTION

The purpose of the family room is to provide facilities for family-centered activities. It is designed for the entire family, children and adults alike.

Only in extremely large residences is there sufficient space for a separate sewing room, children's playroom, hobby room, or music room. The modern family room often performs the functions of all those rooms.

## LOCATION

Activities in the family room often result in the accumulation of hobby materials and clutter. Thus, the family room is often located in an area accessible from, but not visible from, the rest of the living area.

It is quite common to locate the family room adjacent to the kitchen, as shown in Fig. 8-1.

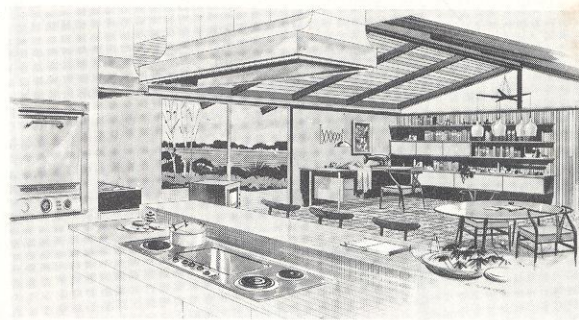


Fig. 8-1 A family room located adjacent to the kitchen. (Olsen-Spencer Assoc.)



This location revives the idea of the old country kitchen in which most family activities were centered.

When the family room is located adjacent to the living room or dining room, it becomes an extension of those rooms for social affairs. In this location, the family room is often separated from the other rooms by folding doors, screens, or sliding doors. The family room shown in Fig. 8-2 is located next to the kitchen and yet is accessible from the living room when the folding door is open.

Another popular location for the family room is between the service area and the living area. The family room shown in Fig. 8-3 is located between the garage, the kitchen, and the entrance. This location is especially appropriate when some service functions, such as home-workshop facilities, are assigned to the family room.

## DECOR

The family room is also known as the *activities room* or *multiactivities room*. Decoration of this room should provide a vibrant atmosphere. Ease of maintenance should be one of the chief considerations in decorating the family room. Family-room furniture should be informal and suited to all members of the family. The use of plastics, leather, and wood provides great flexibility in color and style and promotes easy maintenance.

Floors should be resilient—able to keep original shape or condition despite hard use. Linoleum or tile made of asphalt, rubber, or vinyl will best resist the abuse normally given a family-room floor. If rugs are used, they should be the kind that will stand up under rough treatment. They should also be washable.

Soft, easily damaged materials such as wallpaper and plaster should be avoided for the family room. Materials such as tile and paneling are most functional. Chalkboards, bulletin boards, built-in cupboards, and toy-storage cabinets should be used when appropriate. Work areas that fold into the wall when not in use conserve space and may perform a dual function if the cover wall can also be used as a chalkboard or a bulletin board.

Since a variety of hobby and game materials will be used in the family room, sufficient space must be provided for the storage of these mate-

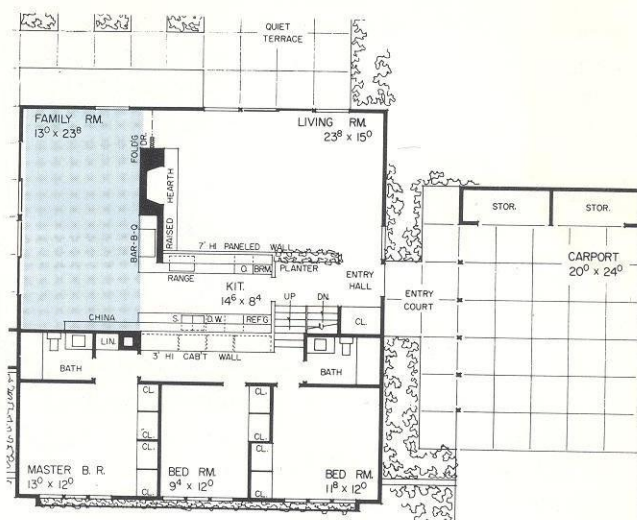


Fig. 8-2 A family room accessible from the kitchen and living room. (Home Planners, Inc.)

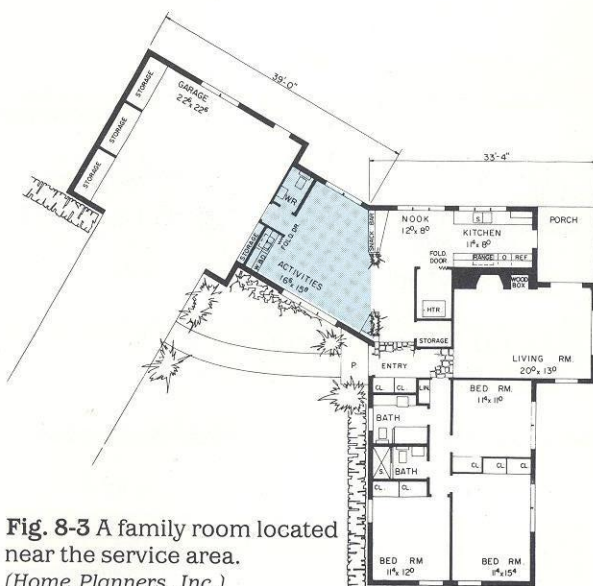


Fig. 8-3 A family room located near the service area. (Home Planners, Inc.)

rials. Figure 8-4 shows the use of built-in storage facilities, including cabinets, closets, and drawer storage.

Acoustical ceilings are recommended to keep the noise of the various activities from spreading to other parts of the house. This feature is especially important if the family room is located on a lower level.

## SIZE AND SHAPE

The size and shape of the family room depends directly on the equipment needed for the activi-



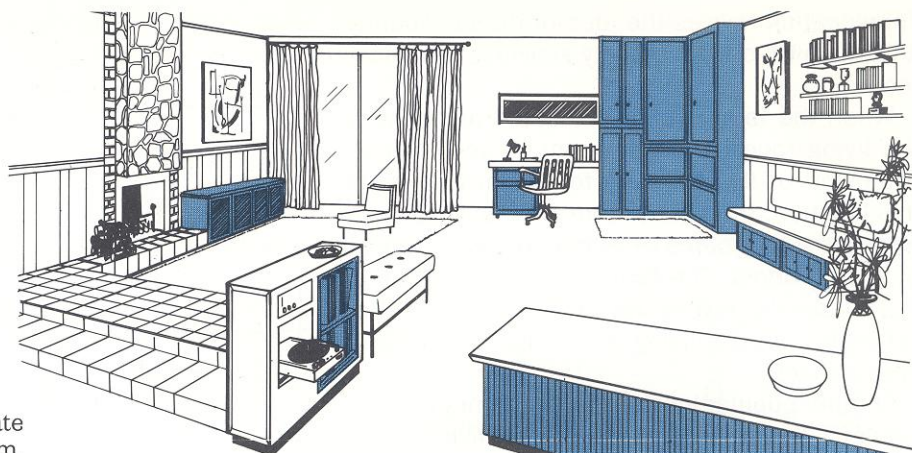


Fig. 8-4 Plan for adequate storage in the family room.

ties the family will pursue in this room. The room may vary from a minimum-sized room, of approximately 150 sq. ft. (150 ft<sup>2</sup>), to the more op-

timum-sized family room, of 300 ft<sup>2</sup> or more. Most family-room requirements lie somewhere between the two extremes.

## Exercises



1. Sketch a family room you would like to include in a home of your own design. Include the location of all furniture and facilities (scale  $\frac{1}{2}'' = 1' - 0''$ ).
2. Design a family room primarily for children's activities.
3. Design a family room that doubles as a guest bedroom.
4. Define the following terms: *sewing room, children's playroom, hobby room, music room, family room, multiactivities, linoleum, asphalt tile, rubber tile, vinyl tile, acoustical ceiling.*

## UNIT 9

# RECREATION ROOMS

The *recreation room* (game room, playroom) is exactly what the name states. It is a room for play and recreation. It includes facilities for participation in recreational activities.

## FUNCTION

The design of the recreation room depends on the number and arrangement of the facilities

needed for the various pursuits. Activities for which many recreation rooms are designed include billiards, chess, checkers, table tennis, darts, television watching, eating, and dancing.

The function of the recreation room often overlaps that of the family room. Overlapping occurs when a multipurpose room is designed to provide for recreational activities such as table tennis and billiards and also includes facilities for more sedentary family activities such as sewing, knitting, model building, and other hobbies.

## LOCATION

The recreation room is frequently located in the basement in order to use space that would otherwise be wasted. Basement recreation rooms often provide more space for the use of



large equipment, such as table-tennis tables, billiard tables, and shuffleboard. A basement recreation-room fireplace can be located directly beneath the living-room fireplace on the upper level.

When the recreation room is located on the ground level, its function can be expanded to the patio or terrace. Regardless of the level, the recreation room should be located away from the quiet areas of the house.

## DECOR

Designers take more liberties in decorating the recreation room than with any other room. They do so primarily because the active, informal atmosphere that characterizes the recreation room lends itself readily to unconventional furni-

ture, fixtures, and color schemes. Bright, warm colors can reflect a party mood. Furnishings and accessories can be used to accent a variety of central themes. Regardless of the central theme, recreation-room furniture should be comfortable and easy to maintain. The same rules apply to recreation-room walls, floors, and ceilings as apply to those of the family room.

## SIZE AND SHAPE

The size and shape of the recreation room depend on whether the room occupies an area on the main level or whether it occupies basement space. If basement space is used, the only restrictions on the size are the other facilities that will also occupy space in the basement, such as the laundry, the workshop, or the garage.

### Exercises



1. Sketch a plan of a recreation room you would include in a house of your own design.
2. Sketch a plan for a recreation room, including

facilities for billiards, chess, shuffleboard, and television watching.

3. Define the following terms: *game room*, *playroom*, *recreation room*.

## U N I T 1 0

# PORCHES AND DECKS

A *porch* is a covered platform leading into an entrance of a building. Porches are commonly enclosed by glass, screen, or post and railings. A porch is not the same as a patio. The porch is attached structurally to the house, whereas a patio is placed directly on the ground. Balconies and decks are actually elevated porches.

## FUNCTION

Porches serve a variety of functions. Some are used for dining and some for entertaining and

relaxing. Others are furnished and function like patios for outdoor living. Still others provide an additional shelter for the entrance to a house or patio. The primary function of a porch depends on the structure and purpose of the building to which it is attached.

## Verandas

Southern colonial homes were designed with large porches, or *verandas*, extending around several sides of the home. Outdoor plantation life centered on the veranda, which was very large.

## Balconies

A *balcony* is a porch suspended from an upper level of a structure. It usually has no access from the outside. Balconies often provide an extension to the living area or a private extension to a bedroom.



The house shown in Fig. 10-1 is distinguished by several types of balconies. The upper balcony is supported by cantilevered beams and provides an extension that covers the porch below. The porch in turn shelters a patio below it. Hillside lots lend themselves to vertical plans and provide maximum flexibility in using outdoor living facilities.

Spanish- and Italian-style architecture is characterized by numerous balconies. The return of the balcony to popularity has been influenced and accelerated by new developments in building materials. The principle of cantileverage, or suspension in space, can also be used to a greater extent with steel construction. An example is shown in the balcony in Fig. 10-2.

## Stoop

The stoop is a projection from a building, similar to a porch. However, a stoop does not provide sufficient space for any activities. It provides only shelter and an access to the entrance of the building.

## The Modern Porch

Only in the last several years has the porch been functionally designed and effectively utilized for outdoor living. The classic front porch and back porch that characterized most homes built in this country during the 1920s and 1930s were designed and used merely as places in which to sit. Little effort was made to use the porch for any other activities. A porch for a modern home

should be designed for the specific activities anticipated for it. The form of the porch should be determined by its function.

## LOCATION

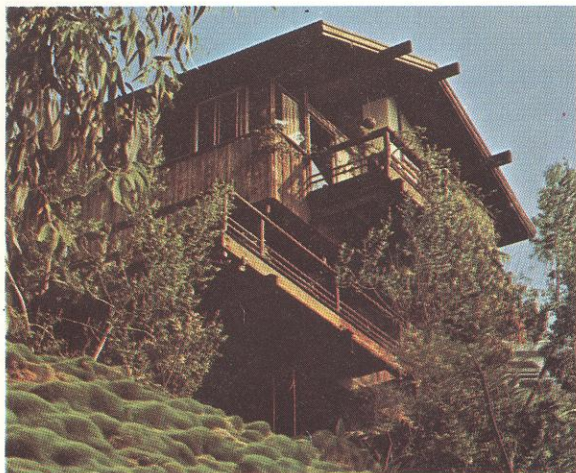
Since the porch is an integral part of the total house design, it must be located where it will function best. A porch can be made consistent with the rest of the house by extending the lines of the roof to provide sufficient *overhang*, or projection.

A dining porch should be located adjacent to either the dining room or the kitchen. The dining porch shown in Fig. 10-3 can be approached from the dining room or from the living-area porch.

The porch should be located to provide maximum flexibility. A porch that can function for dining and other living activities is desirable. The primary functions of the porch should be considered when orienting the porch with the sun. If much daytime use is anticipated and direct sunlight is desirable, a southern exposure should be planned. If little sun is wanted during the day, a northern exposure would be preferable. If morning sun is desirable, an eastern exposure would be best, and for the afternoon sun, a western exposure.

## DECOR

The porch should be designed as an integral and functional part of the total structure. A blending of roof styles and major lines of the porch roof

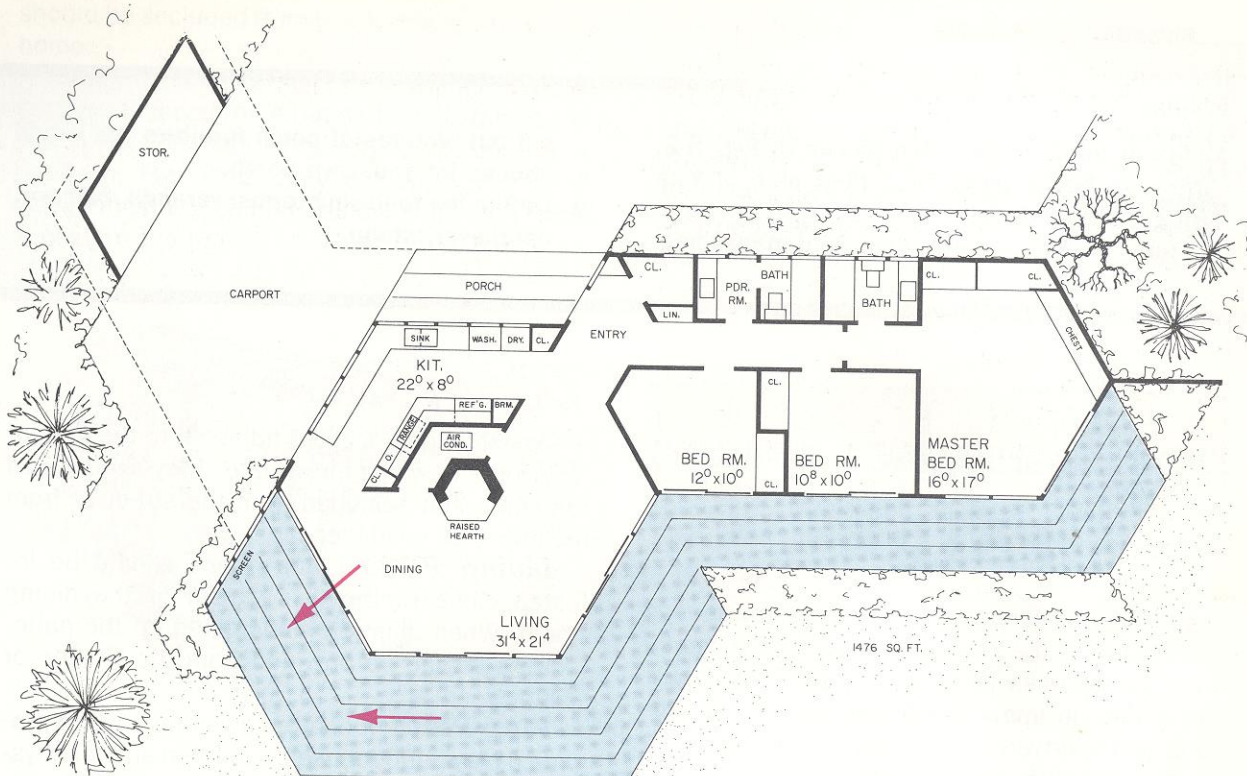


**Fig. 10-1** The upper balcony of this house provides protection for the patio below. (Western Wood Products Assoc.)



**Fig. 10-2** Steel members make large cantilevered distances possible.





**Fig. 10-3** Location of a dining porch. (*Home Planners, Inc.*)

and house roof is especially important (Fig. 10-4). A similar consistency should characterize the vertical columns or support members of the porch. Figure 10-4 shows some relationships that can be established to prevent the tacked-on-look and to ensure uniformity in design.

Various materials and methods can be used for deck railings, depending on the degree of privacy or sun and wind protection needed. The

sides of porches can provide adequate ventilation and also offer semiprivacy and safety. Railings on elevated porches should be designed at a height above 3' (915 mm) to discourage the use of the top rail as a place to sit.

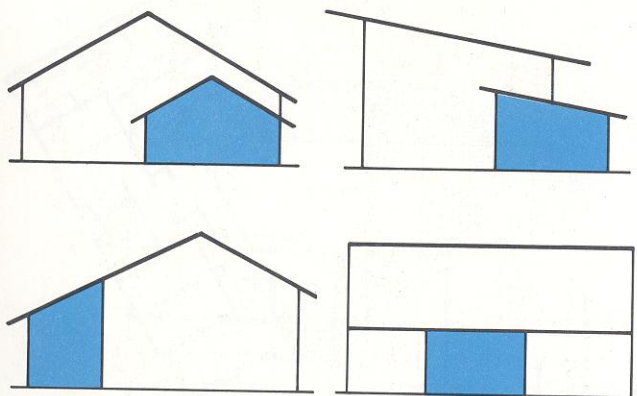
Porch furniture should withstand deterioration in any kind of weather. The covering material should be waterproof, stain-resistant, and washable. Protection from wind and rain should be planned.



## SIZE AND SHAPE

Porches range in size from the very large veranda to rather modest-sized stoops, which provide only shelter and a landing surface for the main entrance. A porch approximately 6' X 8' (1.8 m X 2.4 m) is considered minimum-sized. An 8' X 12' (2.4 m X 3.7 m) porch is about average. Porches larger than 12' X 18' (3.7 m X 5.5 m) are considered rather large.

The shape of the porch depends greatly upon how the porch can be integrated into the overall design of the house.



**Fig. 10-4** The lines of the porch should be consistent with the lines of the house.



1. Add a porch to the plan shown in Fig. 8-2.
2. Add a porch to a floor plan of your own design.
3. From catalogs, newspapers, and magazines,

4. Define the following terms: *veranda*, *balcony*, *cantilever*, *stoop*.

## UNIT 11

### PATIOS

A *patio* is a covered surface adjacent or directly accessible to the house. The word *patio* comes from the Spanish word for courtyard. Courtyard living was an important aspect of Spanish culture, and courtyard design was an important part of early Spanish architecture.

### FUNCTION



The patio at various times may perform outdoors all the functions that the living room, dining room, recreation room, kitchen, and family room perform indoors.

The patio is often referred to by other names, such as *loggia*, *breezeway*, and *terrace*.

Patios can be divided into three main types according to function: *living patios*, *play patios*, and *quiet patios*. The home shown in Fig. 11-1 contains all three kinds of patios.

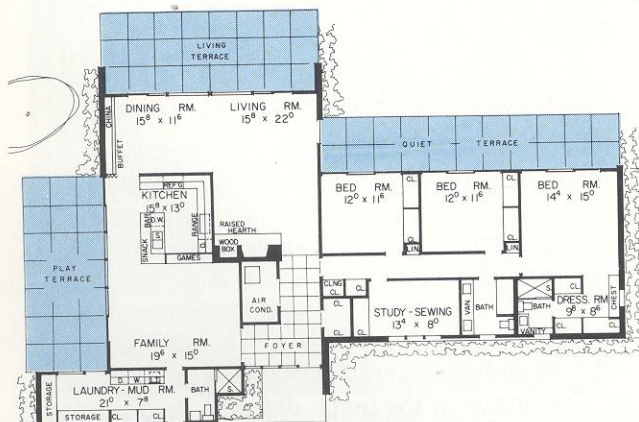


Fig. 11-1 This plan includes three kinds of patios. (Home Planners, Inc.)

### LOCATION

Patios should be located adjacent to the area of the home to which they relate. They should also be somewhat secluded from the street or from neighboring residences.

**Living Patio** Living patios should be located close to the living room or the dining room. When dining is anticipated on the patio, access should be provided from the kitchen or dining room.

**Play Patio** It is often advantageous to provide a play patio for use by children and for physical activities not normally associated with the living terrace. The play terrace sometimes doubles as the service terrace and can conveniently be placed adjacent to the service area. Notice the location of the play terrace in Fig. 11-1. It is related directly to the service area and also to the family room in the living area.

**Quiet Patio** The quiet patio can actually become an extension of the bedroom. It can be used for relaxation or sleeping. A quiet terrace

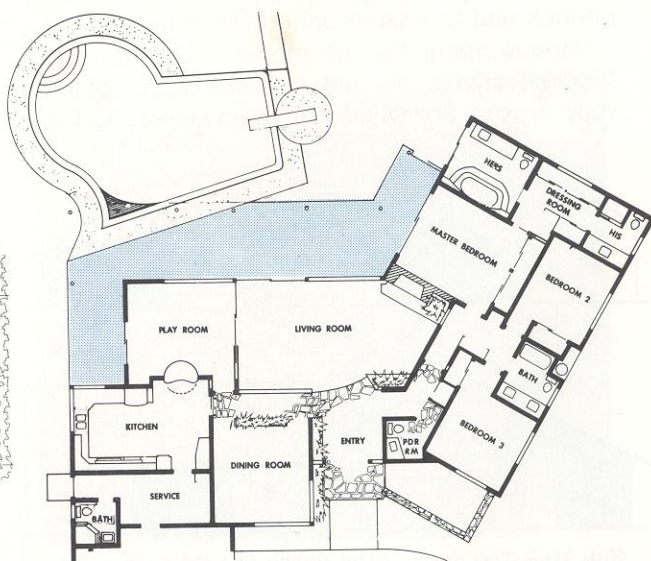


Fig. 11-2 Continuous patio. (Southern California Gas Co.)



should be secluded from the normal traffic of the home.

Often the design of the house will allow these separately functioning patios to be combined in one large, continuous patio. That type of patio is shown in Fig. 11-2. Here the playroom, living room, master bedroom, and kitchen all have access to the patio.

## Placement

Patios can be conveniently placed at the end of a building, between corners of a house, or wrapped around the side of the house, as shown in Fig. 11-2. Or they may be placed in the center of a U-shaped house or in a courtyard. The courtyard patio shown in Fig. 11-3 offers complete privacy from all sides.

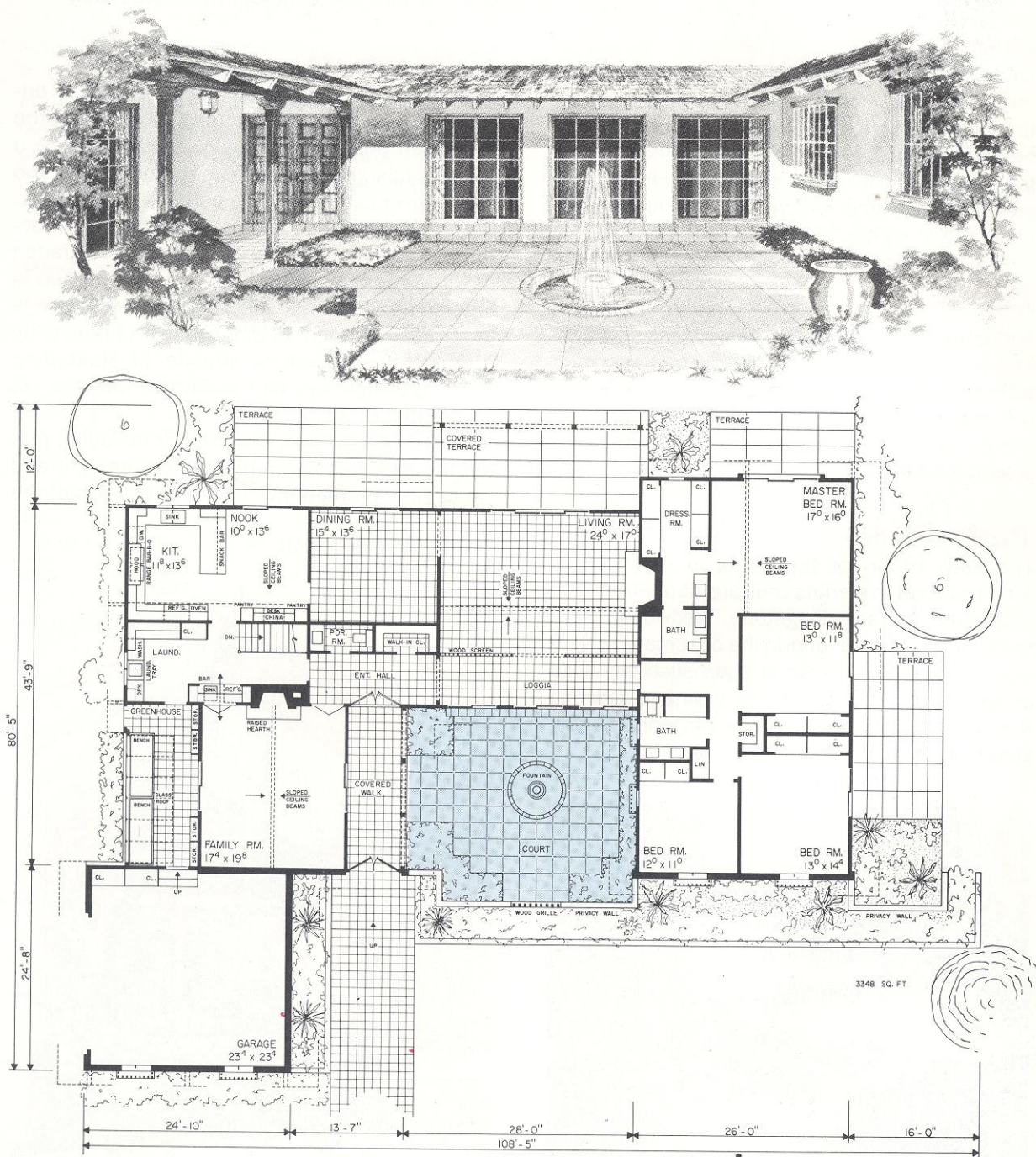


Fig. 11-3 A courtyard patio. (Home Planners, Inc.)



## Separate Patios

In addition to the preceding locations, the patio is often located completely apart from the house. When a wooded area, a particular view, or a terrain feature is of interest, the patio can be placed away from the house. When the patio is located in this manner, it should be readily accessible.

## Orientation

When the patio is placed on the north side of the house, the house itself can be used to shade the patio. If sunlight is desired, the patio should be located on the south side of the house. The planner should take full advantage of the most pleasing view and should restrict the view of undesirable sights.

## DECOR

The materials used in the deck, cover, baffles, and furniture of the patio should be consistent with the lines and materials used in the rest of the home. Patios should not appear to be designed as an afterthought but should appear and function as an integral part of the total design.

## Patio Deck

The deck (floor) of the patio should be constructed from materials that are permanent and maintenance-free. Flagstone, redwood, concrete, and brick are among the best materials for use on patio decks. Wood slats such as those shown in Fig. 11-4 provide for drainage between the slats and also create a warm appearance. However, they do require maintenance.



Fig. 11-4 A wood-slat patio deck. (Julius Shulman)

Brick-surface patio decks are very popular because bricks can be placed in a variety of arrangements to adapt to practically any shape or space. The area between the bricks may be filled with concrete, gravel, sand, or grass. A concrete deck is effective when a smooth, unbroken surface is desired. Patios where bouncing-ball games are played, or where poolside cover is desired, can use concrete advantageously.

## Patio Cover



Patios need not be covered if the house is oriented to shade the patio during the times of the day when shade is normally desired. Since a patio is designed to provide outdoor living, too much cover can defeat the purpose of the patio. Coverings can be an extension of the roof structure, as shown in Fig. 11-5. They may be graded or tilted to allow light to enter when the sun is high and to block the sun's rays when the sun is lower. The graded effect can be obtained by placing louvers spaced straight or slanted to admit the high sun and block the low sun, as shown in Fig. 11-6.

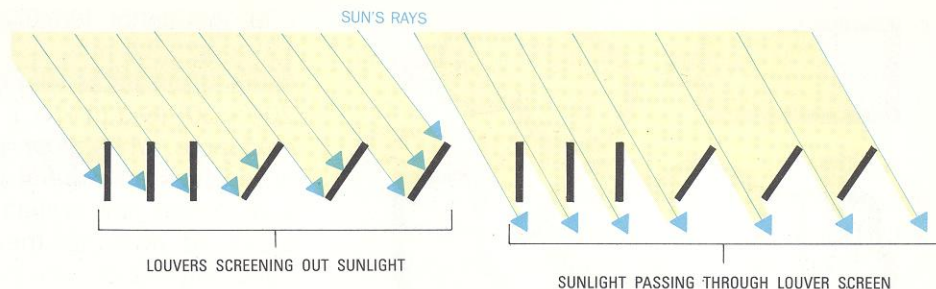
Plastic, glass fiber, and other translucent materials used to cover patios admit sunlight and yet provide protection from the direct rays of the



Fig. 11-5 A covered patio. (Home Planners, Inc.)



**Fig. 11-6** The angle and spacing of louvers is important in proper sun screening.



sun. Translucent covers also provide shelter from rain. When translucent covering is used, it is often desirable to have only part of the patio covered. This arrangement provides sun for part of the patio and shade for other parts. Balconies can also be used effectively to provide shelter for a patio.

## Walls and Baffles

Patios are designed for outdoor living, but outdoor living need not be public living. Some privacy is always desirable. Solid walls can often be used effectively to baffle the patio from a street view, from wind, and from the low rays of the sun. Baffling devices include solid fences, slatted fences, concrete blocks, post-and-rail, brick or stone walls, and hedges or other shrubbery.

A solid baffle wall is often undesirable because it restricts the view, eliminates the circulation of air, and makes the patio appear smaller.

In mild climates, completely enclosing a patio by solid walls can help make the patio function as another room. In such an enclosed patio, some opening should be provided to allow light and air to enter. The grillwork openings often provide an effective and aesthetically pleasing solution to this problem.

## Day and Night Decor

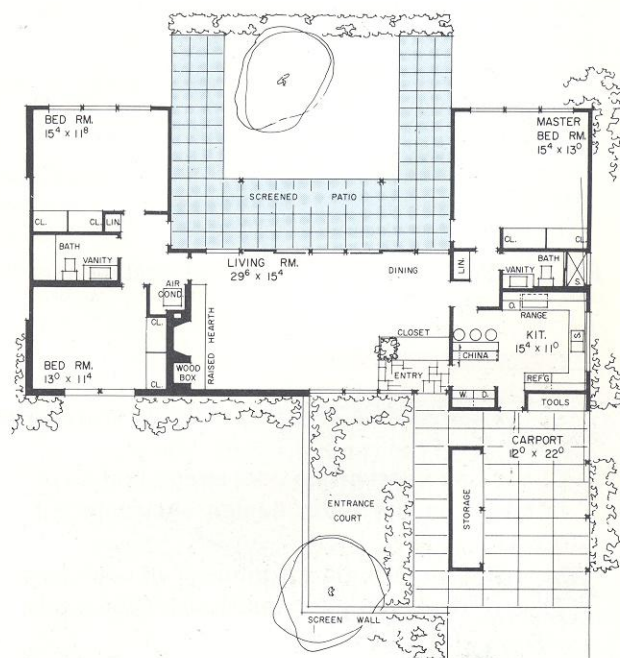
To be totally effective, the patio should be designed for both daytime and nighttime use. Correct use of general and local lighting can make the patio useful for many hours each day. If the walls between the inside areas of the house and the patio are designed correctly, much light from the inside can be utilized on the patio.

If carefully designed and located the patio area can provide visual enhancement to the living area not available when deciduous trees are in leaf.

## SIZE AND SHAPE

Patios may range from the size of a small garden terrace to the spaciousness of the courtyard patio shown in Fig. 11-7. The primary function will largely determine the size. A Japanese-garden terrace, for instance, has no furniture and is designed primarily to provide a baffle and a beautiful view. The courtyard patio is designed for many uses.

Activities should be governed by the amount of space needed for equipment. Equipment and furnishings normally used on patios include picnic tables and benches, lounge chairs, serving carts, game apparatus, and barbecue pits. The placement of these items and the storage of games, apparatus, and fixtures should determine the size of the patio. Patios vary more in length than in width, since patios may extend



**Fig. 11-7** A spacious courtyard patio. (Home Planners, Inc.)



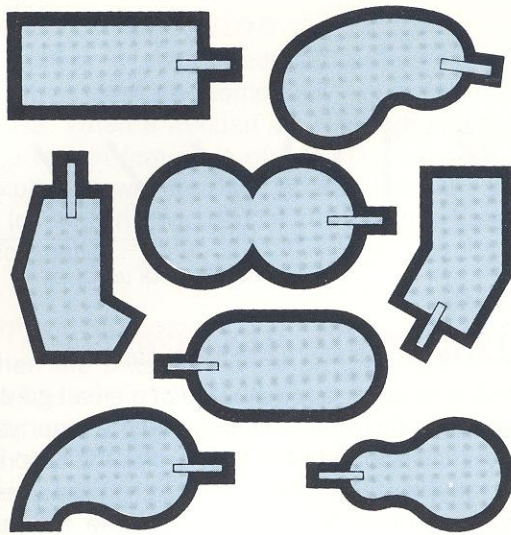


Fig. 11-8 Pool shapes.

over the entire length of the house. A patio  $12' \times 12'$  ( $3.7 \text{ m} \times 3.7 \text{ m}$ ) is considered a minimum-sized patio. Patios with dimensions of  $20' \times 30'$  ( $6.0 \text{ m} \times 9.1 \text{ m}$ ) or more are considered large. When a pool is designed for a home, it becomes an integral part of the patio. Many pool shapes now available allow the designer to blend the pool into the size and shape of the patio (Fig. 11-8).

When designing and locating a pool, the location of the filter, heater (if used), and electrical, plumbing, and filter lines must be planned. Since the filter runs continuously, it should be located as far from the patio as possible without the use of excessively long plumbing, electrical, and filter supply lines. Figure 11-9 shows the location of this equipment in relationship to the pool and patio.

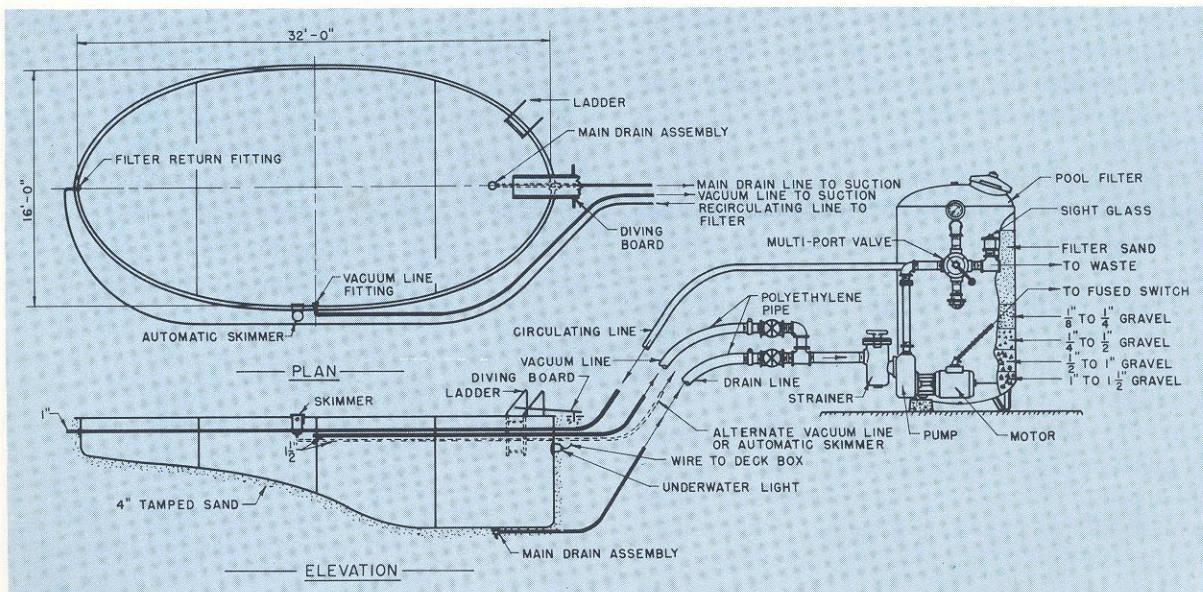


Fig. 11-9 Filtering-system equipment location must be included in plans. (Lancer Pool Corp.)

## Exercises

1. Choose an appropriate pool shape and incorporate it in the patio design shown in Fig. 11-1.
2. Plan a patio for a house of your own design. Sketch the basic scheme and

the facilities.

3. Define the following terms: *patio*, *loggia*, *breezeway*, *terrace*, *play patio*, *quiet patio*, *living patio*, *flagstone*, *redwood*, *concrete*, *patio deck*, *patio baffles*.



## LANAIS

*Lanai* is the Hawaiian word for porch. However, the word *lanai* is now also used to refer to a covered exterior passageway.

### FUNCTION

Large lanais are often used as patios, although their main function is to provide shelter for the traffic accesses on the exterior of a building. Lanais are actually exterior hallways (Fig. 12-1A).

Lanais that are located parallel to exterior walls are usually created by extending the roof overhang to cover a traffic area as shown in Fig. 12-1B. A typical lanai plan eliminates the need

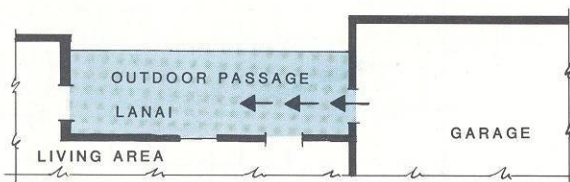


Fig. 12-1A Lanais connecting living areas.

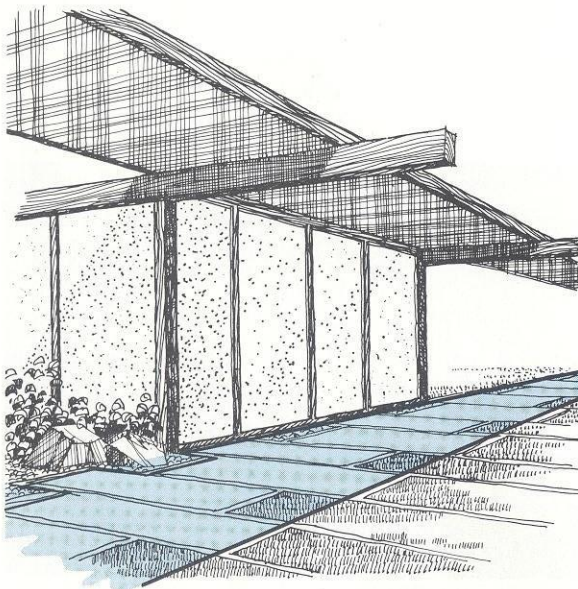


Fig. 12-1B Lanais created by a large roof overhang.

for more costly interior halls. Lanais are used extensively in warmer climates.

### LOCATION

In residence planning, a lanai can be used most effectively to connect opposite areas of a home. Lanais are commonly located between the garage and the kitchen, the patio and the kitchen or the living area, and the living area and the service area. U-shaped buildings are especially suitable for lanais because it is natural to connect the extremes of the U.

When lanais are carefully located, they can also function as sheltered access from inside areas to outside facilities such as patios, pools, outdoor cooking areas, or courtyards, as shown in Fig. 12-2. A covered or partially covered patio is also considered a lanai when it doubles as a major access from one area of a structure to another. The patio shown in Fig. 12-3 functions in this manner. A lanai can also be semi-enclosed and provide not only traffic access but also privacy and sun and wind shielding. When lanais are used to connect the building with the street, they actually function as marquees.

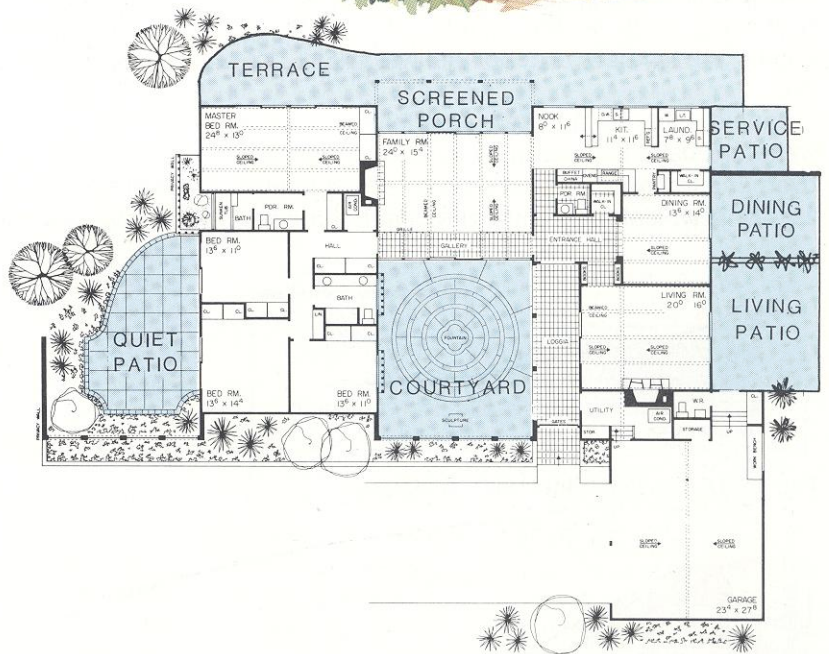
### DECOR

The lanai should be a consistent, integral part of the design of the structure. The lanai cover may be an extension of the roof overhang or may be supported by columns, as shown in Fig. 12-4. If glass is placed between the columns, the lanai becomes an interior hallway rather than an exterior one. This separation is sometimes the only difference between a lanai and an interior hall.

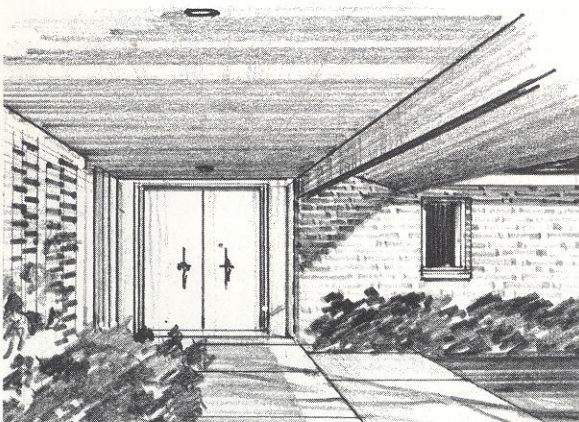
It is often desirable to design and locate the lanai to provide access from one end of an extremely long building to the other end, as shown in Fig. 12-4. The lines of this kind of lanai strengthen and reinforce the basic horizontal and vertical lines of the building. The columns supporting the roof overhang in Fig. 12-4 also provide a visual boundary without blocking the view.

If a lanai is to be utilized extensively at night, effective lighting must be provided. Light from within can be used when drapes are open, but additional lighting fixtures are used for the times when drapes are closed.

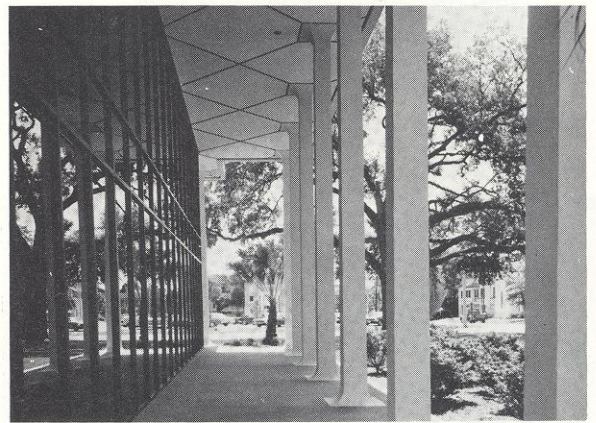




**Fig. 12-2** Lanais integrated with courtyard. (*Home Planners, Inc.*)



**Fig. 12-3** Covered entrance lanais. (*Home Planners, Inc.*)



**Fig. 12-4** A large commercial building lanai. (*Libby-Owens-Ford*)



## SIZE AND SHAPE

Lanais may extend the full length of a building and may be designed for maximum traffic loads. They may be as small as the area under a 2' or 3'

(610- or 915-mm) roof overhang. However, a lanai at least 4' (1220 mm) wide is desirable. The length and type of cover is limited only by the location of areas to be covered.

### Exercises



1. Draw the outline of a lanai you would plan for a home of your own design.
2. Sketch a floor plan of your own home. Add a lanai to connect two of the areas, such as the sleeping and living areas.

3. Define the following terms: *lanai cover*, *roof overhang*, *exterior hallway*, *traffic load*, *baffle*, *translucent*.

## UNIT 13

# TRAFFIC AREAS AND PATTERNS

When an architect plans a commercial structure both vehicular and pedestrian traffic volume and patterns must be considered. Traffic inside and outside the building must be planned for. Traffic areas for employees, visitors, and deliveries into and out of the building must be allocated using a minimum amount of space. In designing commercial traffic areas, the maximum volume of pedestrian traffic must be considered.

Planning the traffic areas of residence is not as complex, because of the small number of people involved. Nevertheless, the same basic principle of efficient space allocation prevails. The traffic areas of the home provide passage from one room or area to another. The main traffic areas of a residence include the halls, entrance foyers, stairs, lanais, and areas of rooms that are part of the traffic pattern.

## TRAFFIC PATTERNS

Traffic patterns of a residence should be carefully considered in the design of the room layout. A minimum amount of space should be devoted to traffic areas. Extremely long halls and corri-

dors should be avoided. They are difficult to light and provide no living space. Traffic patterns that require passage through one room to get to another should also be avoided, especially in the sleeping area.

The traffic pattern shown in the plan in Fig. 13-1 is efficient and functional. It contains a minimum amount of wasted hall space without creating a boxed-in appearance. It provides access to each of the areas without passing

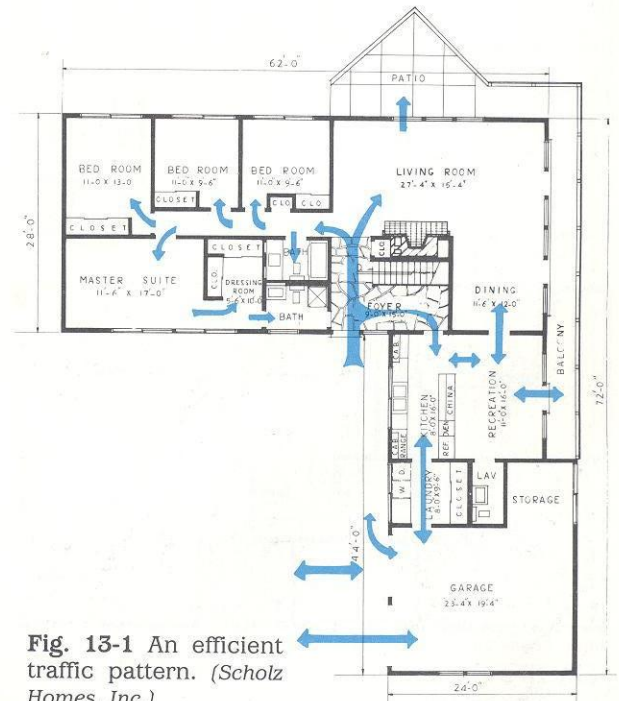


Fig. 13-1 An efficient traffic pattern. (Scholz Homes, Inc.)



through other areas. The arrows clearly show that the sleeping area, living area, and service area are accessible from the entrance without passage through other areas. In this plan the service entrance provides access to the kitchen from the carport and other parts of the service area.

One method of determining the effectiveness of the traffic pattern of a house is to imagine yourself moving through the house by placing your pencil on the floor plan and tracing your route through the house as you perform your daily routine. If you trace through a whole day's activities, including those of other members of the household, you will be able to see graphically where the heaviest traffic occurs and whether the traffic areas have been planned effectively. Figure 13-2 shows the difference between a poorly designed traffic pattern and a well-designed traffic pattern.

## HALLS

Halls are the highways and streets of the home. They provide a controlled path that connects the various areas of the house. Halls should be

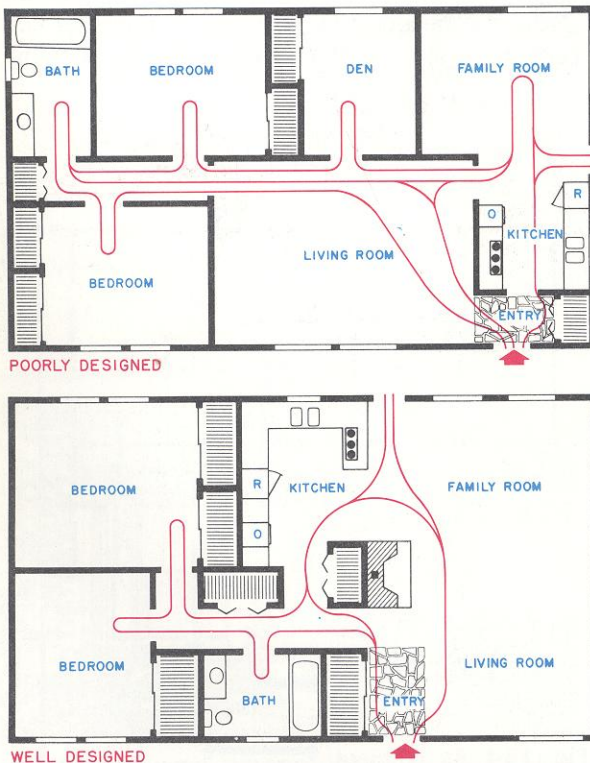


Fig. 13-2 The difference between a poorly designed and a well-designed traffic pattern.

planned to eliminate or keep to a minimum the passage of traffic through rooms. Long, dark, tunnel-like halls should be avoided. Halls should be well lighted, light in color and texture, and planned with the decor of the whole house in mind. The hall shown in Fig. 13-3 is extremely long; however, it is broken by level, by open partitions, and by light variations.

One method of channeling hall traffic without the use of solid walls is with the use of dividers. Planters, half walls, louvered walls, and even furniture can be used as dividers. Figure 13-3 shows the use of furniture components in dividing the living area from the hall. This arrangement enables both the hall and the living room to share ventilation, light, and heat.

Another method of designing halls and corridors as an integral part of the area design is with the use of movable partitions. The Japanese scheme of placing these partitions (shoji) between the living area and a hall is effective. In some Japanese homes, this hall actually becomes a lanai when the partition between the living area and the hall is closed and the outside wall is opened.

Figure 13-4 shows some of the basic principles of efficient hall design.

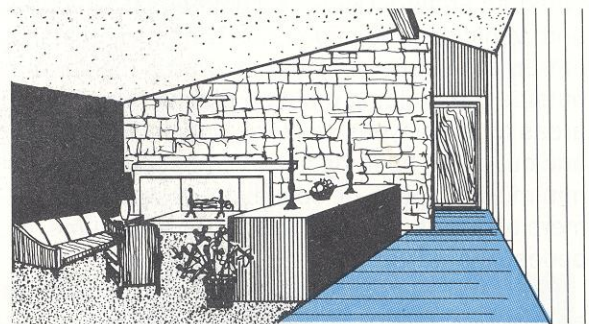


Fig. 13-3 The use of furniture components in separating traffic areas. (United States Plywood Corp.)

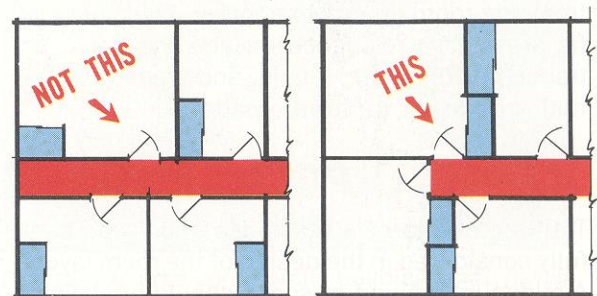


Fig. 13-4 Principles of efficient hall design.



# STAIRS

Stairs are inclined hallways. They provide access from one level to another. Stairs may lead directly from one area to another without a change

of direction, they may turn 90 degrees (90°) by means of a landing, or they may turn 180° by means of landings. Figure 13-5 shows the basic types of stairs.

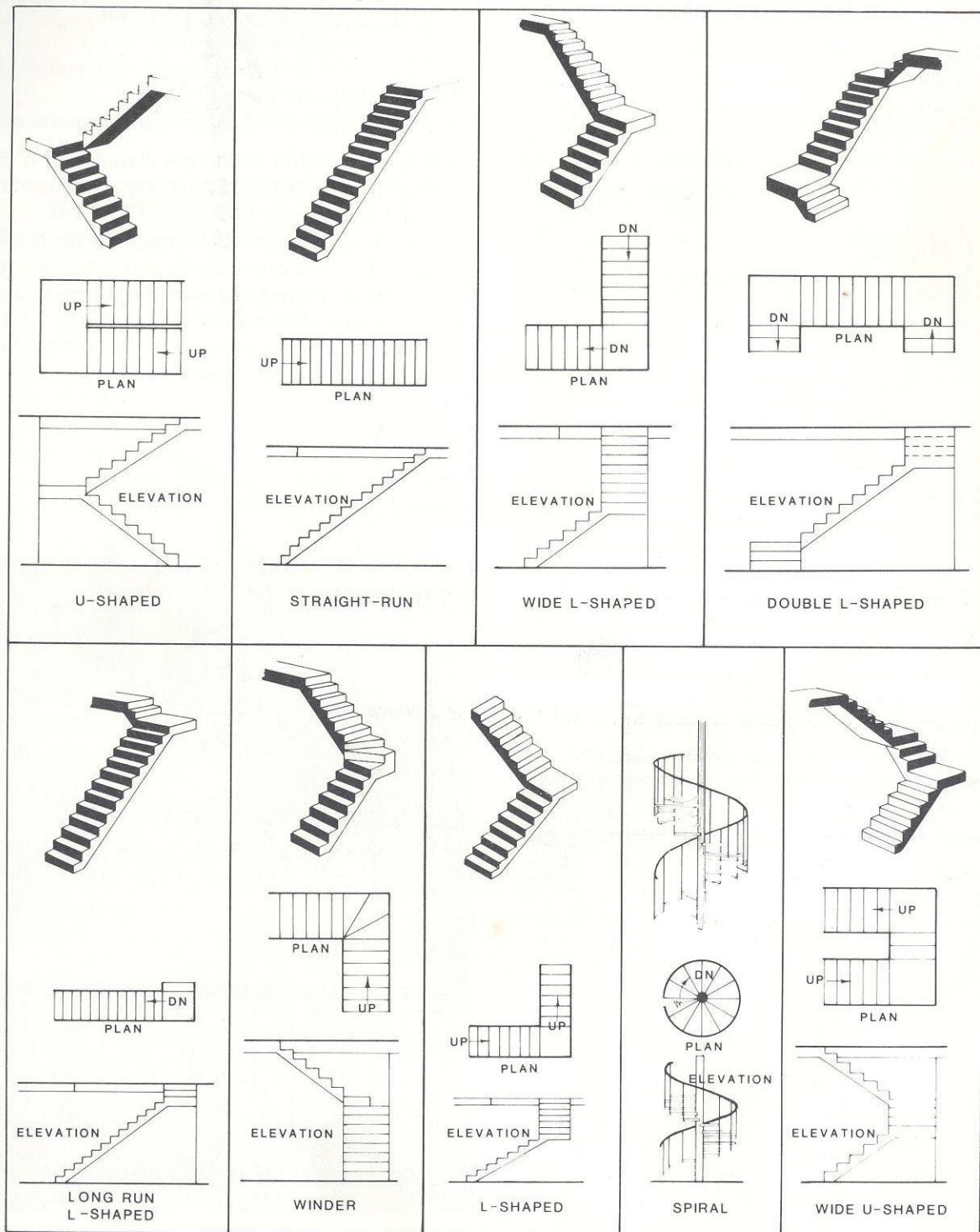


Fig. 13-5 Basic types of stairs.



With the use of newer, stronger building materials and new techniques, there is no longer any reason for enclosing stairs in walls that restrict light and ventilation. Stairs can now be supported by many different devices.

Windows should be placed to provide natural light for stairs. Because stairwells should be lighted at all times when in use, natural light is the most energy-efficient. If it is difficult to provide natural light, three-way switches should be provided at the top and bottom of the stairwell to control the stair lighting. See Unit 61, "Drawing Electrical Plans."

## SPACE REQUIREMENTS

There are many variables to consider in designing stairs. The tread width, the riser width, the width of the stairwell opening, and the headroom all help to determine the total length of the stairwell.

The *tread* is the horizontal part of the stair, the part upon which you walk. The average width of the tread is 10" (250 mm). The *riser* is the vertical part of the stair. The average riser height is 7¼" (180 mm). Figure 13-6 shows the importance of correct tread and riser design.

The *overall width* of the stairs is the length or distance across the treads. A minimum of 3' (915 mm) should be allowed for the total stair width. However, a width of 3'-6" (1070 mm) or even 4' (1220 mm) is preferred (Fig. 13-7).

*Headroom* is the vertical distance between the top of each tread and the top of the stairwell

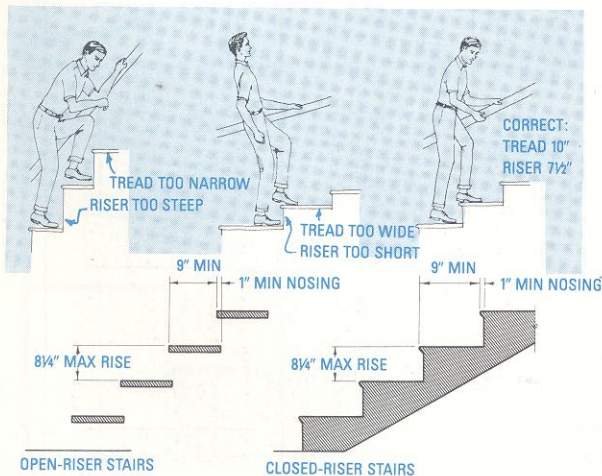


Fig. 13-6 Correct tread and riser design is important.

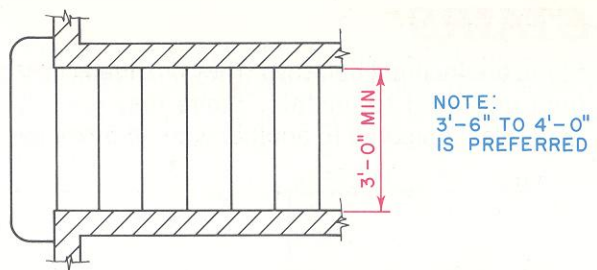


Fig. 13-7 Minimum width of stairs.

ceiling. A minimum headroom distance of 6'-6" (2 m) should be allowed. However, distances of 7' (2.1 m) are more desirable (Fig. 13-8).

Landing dimensions will probably be determined by the size of the stairs and the space for the stairwell. More clearance must be allowed where a door opens on a landing (Fig. 13-9). Landings should be located at the center between levels to eliminate long runs.

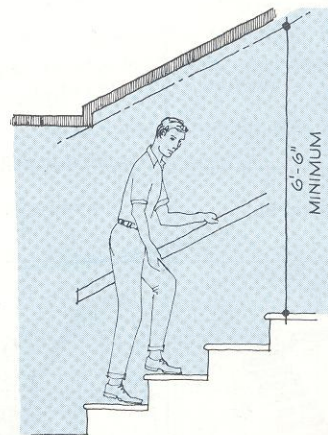


Fig. 13-8 Minimum headroom clearance.

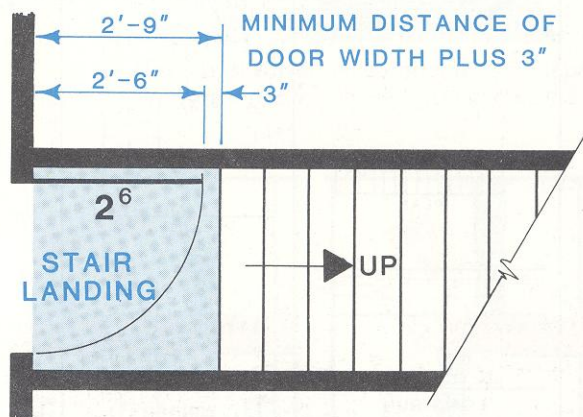


Fig. 13-9 Landing dimensions may need allowance for a door.





1. Sketch the floor plan of a home of your design. Plan the most efficient traffic pattern by tracing the route of your daily routine.
2. Define the following terms: *traffic pattern*,

*halls, corridors, main traffic areas, movable partitions, minimum stair width, center-supported stairs, tread, riser, minimum stair width, headroom, landing.*

## UNIT 14

### ENTRANCES

Entrances are divided into several different types: the main entrance (Fig. 14-1), the service entrance, and the special-purpose entrance. The entrance is composed of an outside waiting area (porch, marquee, lanai), a separation (door), and an inside waiting area (foyer, entrance hall).

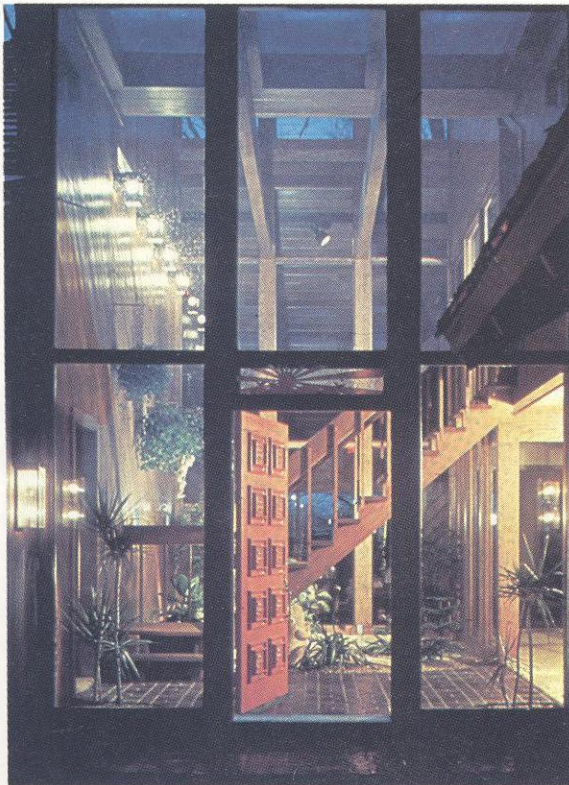


Fig. 14-1 Contemporary main entrance. (Scholz Homes, Inc.)

### FUNCTION

Entrances provide for and control the flow of traffic into and out of a building. Different types of entrances have somewhat different functions.

#### Main Entrance

The *main entrance* provides access to the house. It is the one through which guests are welcomed and from which all major traffic patterns radiate. The main entrance should be readily identifiable. It should provide shelter to anyone awaiting entrance.

Some provision should be made in the main-entrance wall for the viewing of callers from the inside. This can be accomplished through the use of side panels, lights (panes) in the door or windows (Fig. 14-2) which face the side of the entrance.

The main entrance should be planned to create a desirable first impression. A direct view of other areas of the house from the foyer should be baffled but not sealed off. Figure 14-1 shows an atrium foyer that channels traffic without creating a closed area. Also, a direct view of exte-



Fig. 14-2 Side windows provide a view of the entrance from the inside. (Home Planners, Inc.)



rior parking areas should be baffled from view.

The entrance foyer should include a closet for the storage of outdoor clothing and guest wraps. This foyer closet should have a capacity that will accommodate both family and guests.

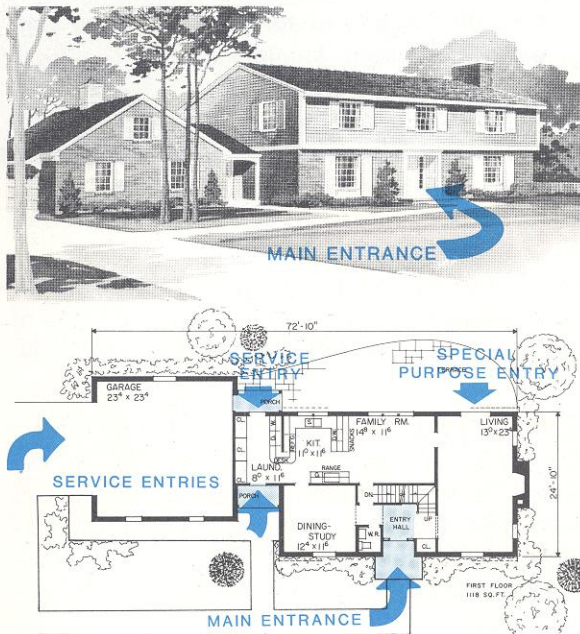


Fig. 14-3 The basic types of entrances. (Scholz Homes, Inc.)

## Service Entrance

The service entrance provides access to the house through which supplies can be delivered to the service areas without going through other parts of the house. It should also provide access to parts of the service area (garage, laundry, workshop) for which the main entrance is inappropriate and inconvenient.

## Special-Purpose Entrances

Special-purpose entrances and exits do not provide for outside traffic. Instead they provide for movement from the inside living area of the house to the outside living areas. A sliding door from the living area to the patio is a special-purpose entrance. It is not an entrance through which street, drive, or sidewalk traffic would have access. Figure 14-3 shows the difference between special-purpose entrances, the main entrance, and the service entrance. Figure 14-4 shows the use of numerous special-purpose entrances.

## LOCATION

The main entrance should be centrally located to provide easy access to each area. It should be

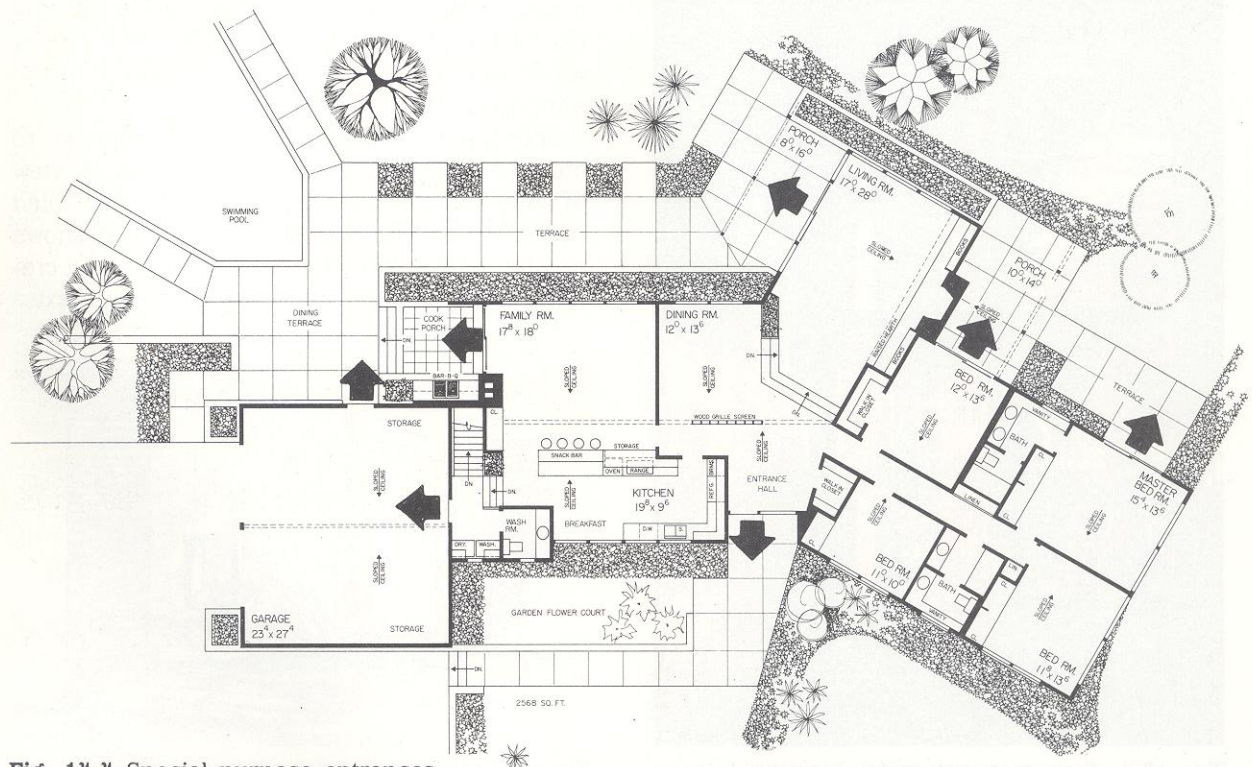
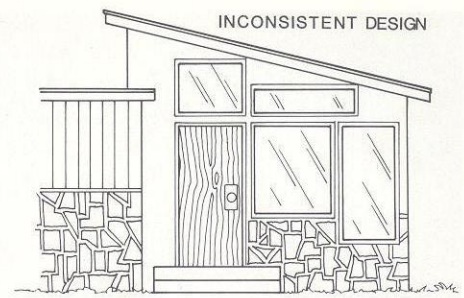
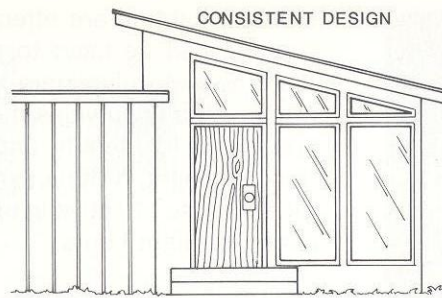


Fig. 14-4 Special purpose entrances. (Home Planners, Inc.)



SECTION 14-5  
ENTRANCE DESIGN  
NEW 10 1

**Fig. 14-5** Left: an entrance with lines related to the lines of the structure. Right: an entrance with lines unrelated to the lines of the structure.



conveniently accessible from driveways, side-walks, or street.

The service entrance should be located close to the drive and garage. It should be placed near the kitchen or food-storage areas.

Special-purpose entrances and exits are often located between the bedroom and the quiet patio, between the living room and the living patio, and between the dining room or kitchen and the dining patio. Figure 14-3 shows the functional placement of all these entrances.

## DECOR

The entrance should create a desirable first impression. It should be easily identifiable yet an integral part of the architectural style.

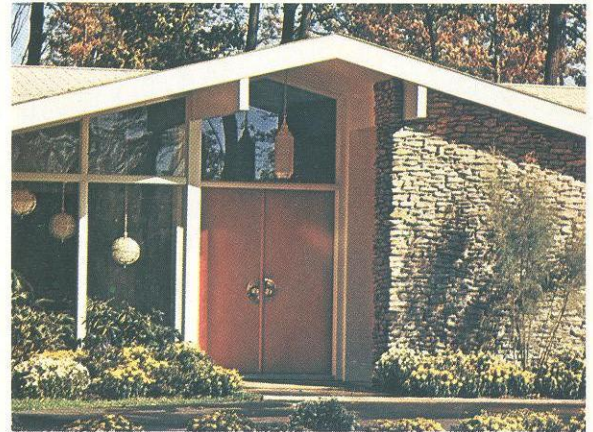
### Consistency of Style

The total design of the entrance should be consistent with the overall design of the house. The design of the door, the side panel, and the deck and cover should be directly related to the lines of the house. The lines of the entrances shown at the left in Fig 14-5 are designed as integral parts of the exterior. The lines of the entrance shown at the right in Fig. 14-5 are unrelated to the major building lines of the structure.

The entrance shown in Fig. 14-6A is a good example of entrance design involving all the principles of location, style consistency, lighting utilization, and size and shape effectiveness. Figure 14-6B shows a close view of an entrance with double swinging entry door.

### Open Planning

The view from the main entrance to the living area should be baffled without creating a boxed-in appearance. The foyer should not appear as a



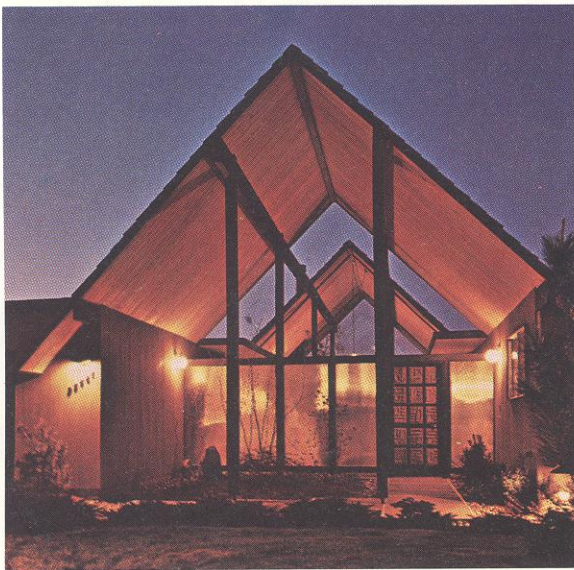
**Fig. 14-6A** Entrance lines related to the remainder of the home. (Scholz Homes, Inc.)



**Fig. 14-6B** A close view of related entrance lines. (Scholz Homes, Inc.)

dead end. The extensive use of glass, effective lighting, and carefully placed baffle walls can create an open and inviting impression. This is accomplished in the entrance shown in Fig. 14-7 by the use of window walls, double doors, roof-overhang extension, and baffle walls that extend





**Fig. 14-7** Open-plan entrance and foyer. (*Western Wood Products Assoc.*)

the length of the foyer. Open planning between the entrance foyer and the living areas can also be accomplished by the use of louvered walls or planter walls. These provide a break in the line of sight but not a complete separation. Sinking or elevating the foyer or entrance approach also provides the desired separation without isolation.

### **Flooring**

The outside portion of the entrance should be weather-resistant stone, brick, or concrete. If a porch is used outside the entrance, a wood deck will suffice. The foyer deck should be easily maintained and be resistant to mud, water, and dirt brought in from the outside. Asphalt, vinyl or rubber tile, stone, flagstone, marble, and terrazzo are most frequently used for the foyer deck. The use of a different material in the foyer area helps to define the area when no other separation exists.

### **Foyer Walls**

Paneling, masonry, murals, and glass are used extensively for entrance foyer walls. The walls of the exterior portion of the entrance should be consistent with the other materials used on the exterior of the house.

### **Lighting**

An entrance must be designed to function day and night. General lighting, spot lighting, and

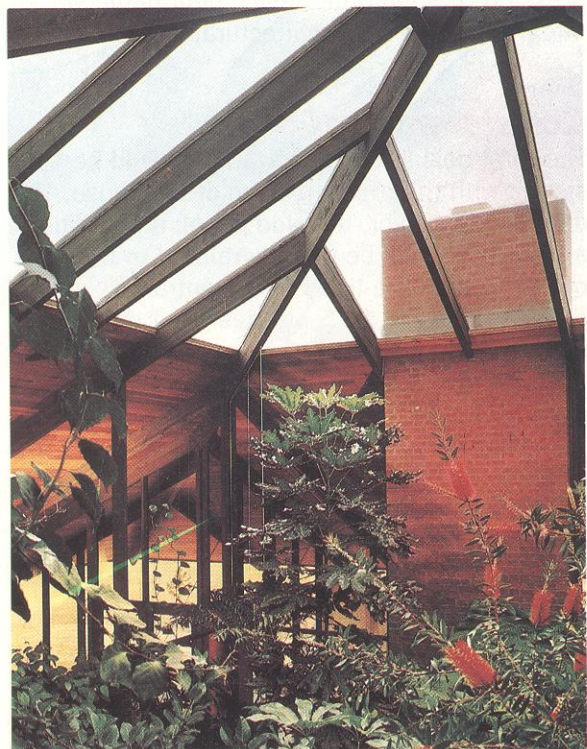
all-night lighting are effective for this purpose. Lighting can be used to accent distinguishing features or to illuminate the pattern of a wall, which actually provides more light by reflection and helps to identify and accentuate the entrance at night. Natural lighting, as shown in Fig. 14-8, is also effective in lighting entrance areas during daylight hours.

## **SIZE AND SHAPE**

The size and shape of the areas inside and outside the entrance depend on the budget and the type of plan. Foyers are not bounded by solid walls in the open plan.

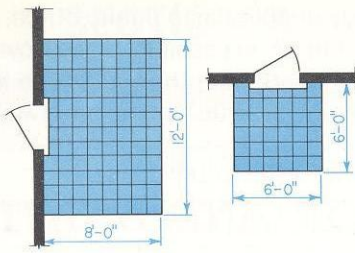
### **The Outside**

The outside covered portion of the entrance should be large enough to shelter several people at one time. Sufficient space should be allowed on all sides, exclusive of the amount of space needed to open storm doors that open to the outside. Outside shelter areas range in size from the minimum arrangement to the more generous size shown in Fig. 14-9.



**Fig. 14-8** Natural lighting used in a foyer. (*Western Wood Products Assoc.*)





**Fig. 14-9** The entrance area on the left has optimum dimensions. The entrance on the right has minimum dimensions.

## The Inside

The inside of the entrance foyer should be sufficiently large to allow several people to enter at the same time, remove their coats, and store them in the closet. A 6' X 6' (1.8 m X 1.8 m) foyer is considered minimum for this function. A

foyer 8' X 10' (2.4 m X 3 m) is average, but a more desirable size is 8' X 15' (2.4 m X 4.6 m).

A foyer arrangement must allow for the swing of the door, something that must be taken into consideration in determining the size of the foyer. If the foyer is too shallow, passage will be blocked when the door is open, and only one person can enter at a time.

Foyers are normally rectangular because they lead to several areas of the home. They do not need much depth in any one direction. The ideal entry includes:

1. Adequate room to handle traffic flow
2. Access to all three areas of a home
3. A closet
4. Bath access for guests
5. Consistent decor
6. Outside weather protection
7. Effective lighting day and night

## Exercises

1. Redesign the entrance shown in Fig. 14-3B, adding sufficient shelter space that will be consistent with the main lines of the house.
2. Plan a foyer for a house you have designed.



3. Define the following terms: *main entrance, service entrance, foyer, special-purpose entrances, open planning.*

## UNIT 15

# DENS AND STUDIES

The den or study can be designed for many different purposes, depending on the living habits of its occupants.

## FUNCTION

The den may function basically as a reading room, writing room, hobby room, or professional office. For the teacher, writer, or clergyman, the

study may be basically a reading and writing room. For the engineer, architect, drafter, or artist, the den or study may function primarily as a studio and may include such facilities as those shown in the study in Fig. 15-1.

The den or study often doubles as a guest room. Quite often the children's bedroom can provide facilities normally included in a study, such as desk, bookcase, and hobby space.

## LOCATION

The den is often considered part of the sleeping area, since it may require placement in a quiet part of the house. It also may function primarily in the living area, especially if the study is used as a professional office by a physician or an insurance agent whose clients call at home. Fig-



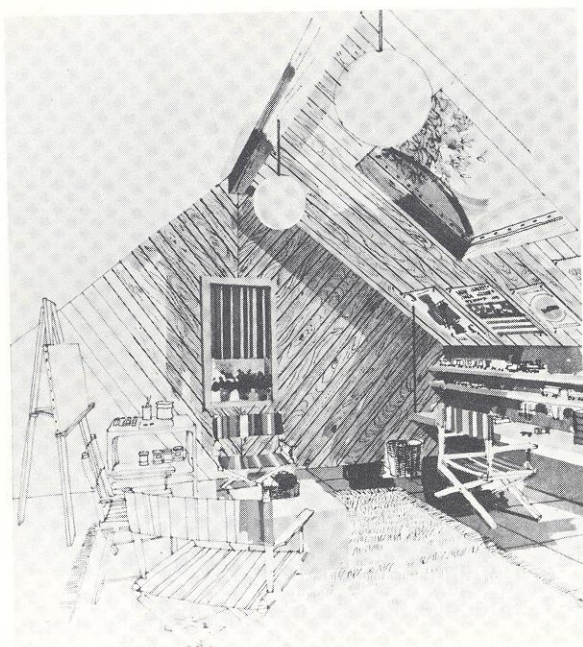


Fig. 15-1 A studio-study. (Haas Cabinet Co.)

Figure 15-2 shows a professional study or office located near the main entrance hall and accessible from the main entrance and also through a side entrance directly from the garage.

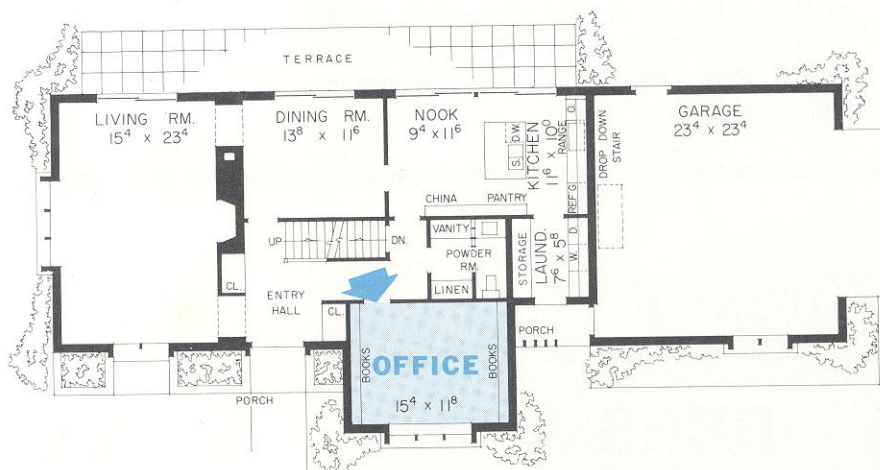


Fig. 15-2 A professional office should be accessible from the main entrance.

## Exercises



1. Sketch a plan for a den in a home of your own design.
2. Sketch a plan for a den for your own home.
3. Sketch a plan for a den which will double as a guest bedroom.
4. Define the following terms: den, study, living area, sleeping area, guest room, professional office, central theme.



## SECTION 4

# SERVICE AREA

The service area includes the kitchen, laundry, garage, workshops, storage centers, and utility room. Since a great number of different activities take place in the service area, it should be designed for the greatest efficiency.

The service area should include facilities for the maintenance and servicing of the other areas of the home. The functioning of the living and the sleeping areas is greatly dependent upon the efficiency of the service area.

## UNIT 16

### KITCHENS

A well planned kitchen is efficient, attractive, and easy to maintain. To design an efficient kitchen, the designer must consider the function, basic shape, decor, size, and location of equipment.

### FUNCTION

The preparation of food is the basic function of the kitchen. However, the kitchen may also be used as a dining area and as a laundry.

The proper placement of appliances, storage cabinets, and furniture is important in planning efficient kitchens. Locating appliances in an efficient pattern eliminates much wasted motion. An efficient kitchen is divided into three areas: the storage and mixing center, the preparation and cleaning center, and the cooking center (Fig. 16-1).



Fig. 16-1 Efficient kitchens are divided into three activity areas. (Tappan Co.)